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REPORT

ARMY MEDICAL LIBRARY

OF THE

SURGEON-GENERAL OF THE ARMY

TO THE

SECRETARY OF WAR

FOR THE

FISCAL YEAR ENDING JUNE 30, 1903.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1903.

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TABLE OF CONTENTS.

	Page.
atement of financial transactions	5
rtificial limbs and apparatus	9
ppliances and trusses	9
are of destitute patients in the Providence Hospital, Washington, D. C	9
rmy Medical Museum	10
brary of the Surgeon-General's Office	12
ospital construction and repair	13
edical officers, U. S. Army	14
The Army Medical School	16
edical officers, volunteers	18
ontract surgeons, U. S. Army	19
ntract dental surgeons	19
e Hospital Corps	30
rmy Nurse Corps	38
edical and hospital supplies	39
ecruiting	40
entification of deserters	41
ealth of the Army	42
cial prevalence of disease	44
evalence of special diseases	47
Scarlet fever	47
Measles	47
Mumps	47
Smallpox	47
Influenza	48
Dengue	48
Diphtheria	48
Yellow fever	48
Typhoid fever	49
Malarial diseases	56
Latent and masked malaria	59
Consumption	65
Leprosy	65
Beri-beri	69
Malta fever	71
Bubonic plague	72
Intestinal diseases	72
Cholera	77
Venereal diseases	98
Alcoholism	100
Insanity	102
juries	102
Gunshot wounds	104
rgical operations for disease and injury	120
e general hospitals	122
Army and Navy General Hospital, Hot Springs, Ark	122
General hospital, Fort Bayard, N. Mex	123
General hospital, Washington Barracks, D. C	125
General hospital, Presidio of San Francisco, Cal	126
First Reserve Hospital, Manila, P. I	128
Hospital No. 4, Manila, P. I	132
tistical tables	133
ternational tables	133

REPORT

OF

THE SURGEON-GENERAL.

War Department, Surgeon-General's Office,
Washington, D. C., August 19, 1903.

Sir: I have the honor to report upon the Medical Department of the Army during the fiscal year ended June 30, 1903, beginning with a statement of finances.

FINANCIAL STATEMENT, 1903.[a]

Medical and hospital department, 1903.

Transferred from medical and hospital department, 1902, by act approved June 30, 1902		$1,000,000.00
Sale to Ordnance Department, U. S. Army	$1.25	
Sales to U. S. Navy	380.53	
Sales to civil government, Philippine Islands	5,857.20	
Sales to States and Territories for use of National Guard	492.50	
Other refundments during the year (including transfer settlements by Treasury Department to adjust appropriations, $24,518.87)	24,871.23	
		31,602.71
Total to be accounted for		1,031,602.71
Disbursed during the year:		
Expenses of medical supply depots	527.49	
Medical supplies	237,128.00	
Medical attendance and medicines	9,360.91	
Medical expenses of recruiting	24,755.91	
Pay of nurses	2,195.00	
Pay of other employees	125,286.45	
Washing of hospital linen	26,880.53	
Expressage	817.63	
Notary fees	32.50	
		426,984.42
Transferred by Treasury settlements to adjust appropriations		22.02
Balances on hand June 30, 1903:		
In United States Treasury and in transit thereto	$422,178.85	
In hands of disbursing officers—		
New York City	145,592.42	
Washington, D. C.	10,944.11	
St. Louis, Mo	13,259.18	
San Francisco, Cal	3,579.85	
Manila, P. I	8,559.83	
Iloilo, P. I	100.61	
Peking, China	81.42	
Nagasaki, Japan	300.00	
		604,596.27
Total accounted for		1,031,602.71

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[a] The disbursements in this statement include settlements with public creditors made by the accounting officers of the Treasury and charged by them to these appropriations.

Medical and hospital department, 1902.

Balances on hand July 1, 1902, act of March 2, 1901		$1,511,888.49
Sales to civil government, Philippine Islands	$96.84	
Other refundments during the year (including transfer settlements by Treasury Department to adjust appropriations, $22.02)	356.63	
		453.47
Total to be accounted for		1,512,341.96
Disbursed during the year:		
Expenses of medical supply depots	112.92	
Medical supplies	45,959.54	
Medical attendance and medicines	3,144.94	
Medical expenses of recruiting	3,503.08	
Pay of nurses	222.43	
Pay of other employees	4,498.44	
Washing of hospital linen	3,459.97	
Expressage	32.05	
Notary fees	8.25	
		60,941.62
Transferred by Treasury settlements to adjust appropriations		24,518.87
Transferred to medical and hospital department, 1903, by act of June 30, 1902		1,000,000.00
Balances on hand June 30, 1903:		
In United States Treasury	425,750.29	
In hands of disbursing officer, Washington, D. C.	1,131.18	
		426,881.47
Total accounted for		1,512,341.96

Medical and hospital department, 1901.

Balances on hand July 1, 1902, acts of May 26, 1900, and March 3, 1901		$222,434.75
Refundment, balance of disbursing officer's depositary account, representing the amount of outstanding checks lost in transit		194.50
Total to be accounted for		222,629.25
Disbursed during the year:		
Medical attendance and medicines	$214.50	
Medical expenses of recruiting	3.50	
Washing of hospital linen	298.66	
By Treasury settlement with owner of lost checks covering payments previously classified	194.50	
		711.16
Transferred by Treasury settlement to miscellaneous receipts to cancel erroneous deposit of proceeds of sales to the credit of this appropriation		20.95
Carried to surplus fund		221,897.14
Total accounted for		222,629.25

Medical and hospital department, 1900 and prior years.

Refunded during the year	$16.20
Carried to surplus fund	16.20

Medical and hospital department, certified claims.

Appropriated by act approved March 3, 1903	$523.62
Disbursed	523.62

Reimbursement to contract nurses.

Balance on hand July 1, 1902, act of June 6, 1900	$3,302.68
Disbursed during the year	23.70
Balance in United States Treasury June 30, 1903	3,278.98
Total accounted for	3,302.68

Report of Army Board on origin and spread of typhoid fever, 1903–4.

Appropriated by act approved March 3, 1903	$24,420.00
Balance in United States Treasury June 30, 1903	24,420.00

Artificial limbs, 1903.

Appropriated by act approved June 28, 1902	$514,000.00
Disbursed during the year	455,628.24
Balance on hand June 30, 1903	58,371.76

Artificial limbs, 1902.

Balance on hand July 1, 1902, act of March 3, 1901	$8,815.00
Disbursed during the year	3,897.83
Balance on hand June 30, 1903	4,917.17

Artificial limbs, 1901.

Balance on hand July 1, 1902, act of June 6, 1900	$10,702.81
Disbursed during the year	472.31
Carried to surplus fund	10,230.50
Total accounted for	10,702.81

Appliances for disabled soldiers, 1903.

Appropriated by act approved June 28, 1902	$2,000.00
Disbursed during the year	1,075.91
Balance on hand June 30, 1903	924.09

Appliances for disabled soldiers, 1902.

Balance on hand July 1, 1902, act of March 3, 1901	$624.65
Disbursed during the year	162.63
Balance on hand June 30, 1903	462.02

Appliances for disabled soldiers, 1901.

Balance on hand July 1, 1902, act of June 6, 1900	$482.48
Carried to surplus fund	482.48

Army Medical Museum, 1903.

Appropriated by act approved June 30, 1902	$5,000.00
Disbursed during the year	3,537.62
Balance on hand June 30, 1903	1,462.38

Army Medical Museum, 1902.

Balance on hand July 1, 1902, act of March 2, 1901	$2,161.56
Disbursed during the year	273.99
Balance on hand June 30, 1903	1,887.57

Army Medical Museum, 1901.

Balance on hand July 1, 1902, act of May 26, 1900	$560.14
Carried to surplus fund	560.14

Library, Surgeon-General's Office, 1903.

Appropriated by act approved June 30, 1902	$10,000.00
Disbursed during the year	7,798.47
Balance on hand June 30, 1903	2,201.53

Library, Surgeon-General's Office, 1902.

Balance on hand July 1, 1902, act of March 2, 1901	$2,889.43
Disbursed during the year	2,871.10
Balance on hand June 30, 1903	18.33

Library, Surgeon-General's Office, 1901.

Balance on hand July 1, 1902, act of May 26, 1900	$63.49
Disbursed during the year	4.55
Carried to surplus fund	58.94
Total accounted for	63.49

Furnishing trusses to disabled soldiers (sections 1176, 1177, and 1178, Revised Statutes, and act of March 3, 1879).

Balance on hand July 1, 1902	$1,380.43
Drawn during the year	6,343.00
Total to be accounted for	7,723.43
Disbursed during the year	6,561.12
Balance on hand June 30, 1903	1,162.31
Total accounted for	7,723.43

Relief of citizens of French West Indies (act approved May 13, 1902).

Balance on hand July 1, 1902, amount drawn by medical department	$5,000.00
Disbursed during the year	4,824.39
Repaid to appropriation and dropped from books of Surgeon-General's Office	175.61
Total accounted for	5,000.00

General summary all appropriations.

Balances on hand July 1, 1902	$1,770,305.91
Appropriated	562,286.62
Refunded	7,725.99
Total to be accounted for	2,340,318.52

Disbursed	$976, 292. 68
Transferred to miscellaneous receipts to cancel erroneous deposit	20. 95
Carried to surplus fund	233, 245. 40
Dropped to close account on books of Surgeon-General's Office	175. 61
Balances on hand June 30, 1903,	1, 130, 583. 88
Total accounted for	2, 340, 318. 52

ARTIFICIAL LIMBS AND APPARATUS.

Under the laws relating to artificial limbs, apparatus, or commutation therefor, orders on manufacturers were given during the fiscal year for 270 artificial legs, 6 arms, and 1 apparatus. Commutation certificates were issued for 2,319 cases of amputated leg, 2,446 of amputated arm, 65 of amputated foot, and for 2,714 cases of the loss of use of a limb.

Under the act of June 17, 1870, and subsequent amendment thereto, 22,765 disabled soldiers and sailors have been furnished artificial limbs or apparatus or have received commutation in money, as follows:

Total number benefited to June 30, 1903, 22,765; died, 9,072; dropped from rolls, probably dead, 590; rejected after one or more payments, 537; remaining on rolls June 30, 1903, 12,566.

Limbs have been furnished or commutation paid as follows: Legs, 34,018; arms, 32,886; feet, 963; apparatus for leg, 26,102; apparatus for arm, 35,311.

Only 228 persons disabled since the beginning of the war with Spain are on the list of beneficiaries under these laws, as follows: Amputation both legs, 1; amputation one leg, 80; amputation one foot, 1; amputation one arm, 41; disabled in four limbs, 3; disabled in three limbs, 5; disabled in two limbs, 22; disabled in one limb, 75.

To meet the claims that will arise during the fiscal year ending June 30, 1905, it is estimated that the sum of $125,000 will be required.

APPLIANCES AND TRUSSES.

One hundred and seventy appliances were issued during the fiscal year, and 932 trusses were furnished and fitted.

CARE OF DESTITUTE PATIENTS IN THE PROVIDENCE HOSPITAL, WASHINGTON, D. C.

The act approved June 28, 1902, having appropriated $19,000 for the support and medical treatment of destitute patients in the city of Washington, D. C., under contract to be made with Providence Hospital by the Surgeon-General of the Army, the relief afforded was as follows:

Patients in hospital July 1, 1902	101
Admitted during the year	1,083
Total number treated	1, 184
Average number admitted per month	99
Number remaining in hospital June 30, 1903	114
Total number of days' treatment afforded	39, 573
Average number of days' treatment per patient	34
Average number of patients treated per day	109
Longest term of treatment (days)	365
Shortest term of treatment (day)	1
Number of patients in hospital during the whole year	11

ARMY MEDICAL MUSEUM.

The total number of specimens in the Army Medical Museum at the end of the fiscal year June 30, 1903, was 35,654. The following statement shows in detail the additions and changes in the different sections:

Pathological section:

In museum June 30, 1902		12,442
Discarded	75	
Transferred to miscellaneous section	1	
		76
		12,366
Transferred from anatomical section		3
Transferred from section of comparative anatomy		1
Transferred from provisional pathological section		13
Received during the year		137
In museum June 30, 1903		12,520

Anatomical section:

In museum June 30, 1902		1,633
Discarded	2	
Transferred to pathological section	3	
		5
		1,628
Received during the year		41
In museum June 30, 1903		1,669

Section of comparative anatomy:

In museum June 30, 1902		1,430
Discarded	12	
Transferred to U. S. National Museum	1	
Transferred to pathological section	1	
		14
In museum June 30, 1903		1,416

Microscopical section:

In museum June 30, 1903	12,916

Miscellaneous section:

In museum June 30, 1902		2,605
Transferred from pathological section	1	
Received during the year	153	
		154
In museum June 30, 1903		2,759

Provisional pathological section:

In museum June 30, 1902		1,272
Discarded	51	
Transferred to U. S. National Museum	3	
Donated to physicians	2	
Donated to students	9	
Transferred to pathological section	13	
		78
		1,194
Received during the year		11
In museum June 30, 1903		1,205

Provisional anatomical section:	
In museum June 30, 1902	659
Donated to students	13
In museum June 30, 1903	646
Photographic series:	
In museum June 30, 1902	2,559
Transferred to Bureau of American Ethnology, Smithsonian Institution	54
	2,505
Received during the year	18
In museum June 30, 1903	2,523

RECAPITULATION.

Specimens in the museum June 30, 1902	35,516
Discarded, transferred, and donated	222
	35,294
Added during the year	360
Specimens in the museum June 30, 1903	35,654

Of the pathological specimens received during the year the most interesting are the following:

12610. A malformation, rhinocephalus. Contributed by Dr. J. Barsky, New York City.
12603, 12604. Pachymeningitis hemorrhagica interna; 2 cases, man and woman, each 55 years old. Contributed by Dr. D. S. Lamb, Washington, D. C.
12558, 12592. Cerebral hemorrhage; 2 cases, woman, aged 40, and man, aged 46. Contributed by Dr. D. S. Lamb, Washington, D. C.
12627. Brain, fibro-sarcoma. Contributed by Dr. Frank Leech, Washington, D. C.
12594, 12632. The eye, case of panophthalmitis following extraction for cataract and atrophy following injury with pine cone. Contributed by Dr. R. S. Lamb, Washington, D. C.
12648, 12649. Miner's lung; 2 cases, one of which shows pneumonia. Contributed by Dr. Charles F. Kieffer, assistant surgeon, U. S. Army.
12653. Pericarditis, extreme case. Contributed by Dr. D. S. Lamb, Washington, D. C.
12624–12626. Valvular disease of heart; hypertrophy and dilatation, with large polypoid thrombus; also leukemic spleen and acute parenchymatous nephritis, from which the patient died. Contributed by Dr. I. H. Lamb, Washington, D. C.
12593. Large leukemic spleen. Contributed by Dr. J. B. Nichols, Washington, D. C.
12609. Cast of large fibroma of naso-pharynx; removed in 1875 by Dr. R. P. Lincoln, by galvano-cautery, from boy of 15 years.
12612. Epithelioma of tongue, removed by Dr. D. P. Hickling, Washington, D. C.
12611. Fibrinous cast of esophagus surrounded by hemorrhage. Contributed by Dr. T. C. Smith, Washington, D. C.
12595–12597. Primary cancer of stomach, with secondary cancer of liver, and in same case a large retro-peritoneal sarcoma; soldier, aged 74. Contributed by Dr. D. C. Huffman, National Soldiers' Home, Ohio.
12605. Multiple echinococcus cysts of liver. Contributed by Dr. L. T. Le Wald, assistant surgeon, U. S. Army.
12575. Adeno-carcinoma of cecum, removed by Dr. E. A. Balloch, Washington, D. C.
12591. Syphilitic ulceration of rectum, with gonorrheal tubo-ovarian cyst. Contributed by Dr. D. S. Lamb, Washington, D. C.
12628. Congenital cysts of kidney. Contributed by Dr. E. E. Morse, Washington, D. C.
12556. Tubercular kidney and ureter; uretero-nephrectomy; by Dr. J. W. Bovee, Washington, D. C.
12563. Large fibroma of scrotum, removed by Dr. E. A. Balloch, Washington, D. C.
12557. Hypertrophied procident cervix, removed by Dr. J. W. Bovee, Washington, D. C.

12578. Pregnant uterus removed for fibroids, by Dr. W. S. Bowen, Washington, D. C.

12555. Ectopic pregnancy, two cases—one by Drs. J. Taber Johnson and Robert Reyburn, Washington, D. C., removed by Dr. Johnson on about eightieth day; the other (12608) by Dr. J. W. Bovee, Washington, D. C., at about one and one-half months. Recovery in each case.

12587. Dentigerous cyst of lower jaw; removed by Dr. R. M. Slaughter, Alexandria, Va.

12614–12621. A number of pre-Columbian bones showing syphilitic inflammation, from burial mounds in Florida. Contributed by Mr. Clarence B. Moore, Philadelphia, Pa.

12576. Adeno-carcinoma of male mammary gland, from man aged 66. Removed by Dr. E. A. Balloch, Washington, D. C.

12569. Perforating ulcer of foot, from a man aged 63, in whose family several persons were also similarly affected. Contributed by Dr. R. F. Sillers, Washington, D. C.

12560. Large bony cyst wall. Purchased.

12613. Wood ticks, the *Dermacentor variegatus*, said to carry the germs of spotted fever. Contributed by Dr. P. M. Ashburn, assistant surgeon, U. S. Army.

12661–12699. Series of 30 "Buchhold" preparations, showing various morbid conditions and animal parasites. Purchased.

Among the interesting additions to the specimens of the anatomical section were:

3924–3933. A series of 10 preparations showing the metamorphoses of some lower animals during development, viz, the blindworm snake (*Anguis fragilis*), the crossed snake (*Pelias berus*), the midwife frog (*Alytes obstetricans*), the common toad (*Bufo cinereus*), the toad frog (*Pelobates fuscus*), the Alpine salamander (*Salamandra atra*), the brook trout (*Salmo fario*), and others, made by Pippow Brothers, Berlin.

3934. Preparation showing the development of the internal ear, made by Lenoir and Forster, Vienna, after the original wax models by Dr. G. Alexander, of Vienna. Enlarged 100 times.

3935. Preparation showing the anatomy of the internal human ear, made by Lenoir and Forster, of Vienna, under the direction of Dr. G. Alexander and Mr. R. Beck, of Vienna. Enlarged 15 times.

3937. Model of woman showing the superficial muscles, veins, and arteries and internal and external generative apparatus. Anterior wall of abdomen is detachable, disclosing all the thoracic and abdominal viscera and the organs of generation, all of which are removable. The deeper muscles, nerves, and blood vessels are represented. Prepared by Dr. Auzoux, of Paris, France.

LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

The following table shows the additions made to the library during the fiscal year:

Description.	On hand June 30, 1902.	Added during fiscal year.	Total June 30, 1903.
	Volumes.	*Volumes.*	*Volumes.*
Medical journals	43,275	1,419	44,694
Medical transactions	6,972	206	7,178
Bound theses	2,154	94	2,248
Bound pamphlets	2,866	4	2,870
Other medical books	89,533	1,884	91,417
Total	144,800	3,607	148,407
Medical theses	63,899	2,458	66,357
Medical pamphlets	179,978	7,228	187,206
Total	243,877	9,686	253,563

Of the total number of theses on hand June 30, 1902, there were 1,124 bound in 94 volumes during the year.

There were presented to the library during the year 511 books and 10,244 pamphlets and journals.

Volume VIII, second series of the Index Catalogue, includes the letters I, J, and K, from Insane to Kysthospitalet, and forms a volume of 894 pages. It will be ready for distribution at the usual time. The appropriation for Volume IX, second series, having been made, the manuscript is in course of preparation for the printer.

HOSPITAL CONSTRUCTION AND REPAIR.

During the fiscal year a new modern hospital was completed at Fort Miley, Cal., and new hospitals contracted for at Fort Banks, Mass., and Fort Greble, R. I. Plans and specifications were also prepared for hospitals to be erected at Fort Rosecrans, Cal.; Fort Des Moines, Iowa; Fort Worden, Wash.; Haines Mission, Alaska; Chickamauga Park, Ga., and Fort Lincoln, N. Dak. Some of these are now in course of erection and proposals are being invited for others.

The hospitals at Fort Hancock, N. J.; Fort Hunt, Va., and Fort Dade, Fla., have been added to, and necessary minor additions and repairs made to hospitals at other military posts.

The general hospital at Fort Bayard, N. Mex., has been enlarged and improved by the following buildings, which are now under contract: Hospital-corps barracks, laboratory, quartermaster's storehouse, medical storehouse, cold-storage plant, crematory, receiving vault, morgue, addition to enlisted men's infirmary, and an addition to officers' infirmary. An electric-lighting plant is being established, the reservoir enlarged, and authority has been given to remodel the plumbing throughout the various buildings, besides for such painting and general repairs as are needed to place the buildings in a proper sanitary condition. An administration building, laundry, chapel, dining rooms, and a few minor structures are required to complete the plan of this hospital and make it a model of its kind for the treatment of tuberculosis patients.

At the general hospital, Presidio of San Francisco, Cal., many improvements have been authorized, such as an excellent operating pavilion, a dormitory, a storehouse for medical property, extensions to wards and to the morgue; also general repairs to plumbing, heating, electric wiring, pathological laboratory, ice machine, etc.

In addition to the foregoing, plans and specifications were prepared for new hospitals to be erected at Fort Flagler, Wash.; Fort Caswell, N. C.; Vancouver Barracks, Wash., and Fort Mackenzie, Wyo. Plans and specifications were also prepared for additions to the hospitals at Fort Wadsworth, N. Y.; Fort Ethan Allen, Vt., and Fort Slocum, N. Y., and proposals for these structures are now being invited in the usual manner.

New quarters for hospital stewards are in course of erection at Plattsburg Barracks, N. Y., and Fort Wadsworth, N. Y. The quarters at Fort Morgan, Ala., have been enlarged and all necessary repairs made to these buildings at the various military posts. New quarters are needed at Fort Riley, Kans.; Fort Mason, Cal.; Fort Banks, Mass.; Fort Meade, S. Dak., and Fort Robinson, Nebr.

MEDICAL OFFICERS, UNITED STATES ARMY.

By the appointment of Major Gorgas to the position of colonel, assistant surgeon-general, the total allowance of medical officers is now 322. On June 30, 1903, the number in service was 287, leaving 35 vacancies to be filled.

The following changes occurred during the fiscal year:

Appointments.—One colonel, assistant surgeon-general, to be Surgeon-General; 1 major, surgeon, to be colonel, assistant surgeon-general (special act, approved March 3, 1903), and 25 first lieutenants, assistant surgeons.

Promotions.—Two lieutenant colonels, deputy surgeons-general, to be colonels, assistant surgeons-general; 2 majors, surgeons, to be lieutenant-colonels, deputy surgeons-general; 6 captains, assistant surgeons, to be majors, surgeons; 4 assistant surgeons, first lieutenants, to be captains, assistant surgeons.

Resignations.—Four first lieutenants, assistant surgeons.

Retirements.—One brigadier-general, Surgeon-General; 1 colonel, assistant surgeon-general; 1 major, surgeon.

Died.—Two majors, surgeons; 1 captain, assistant surgeon, viz, Maj. James C. Merrill, surgeon, U. S. Army, of uremia, at Washington, D. C., October 27, 1902.

Maj. Walter Reed, surgeon, U. S. Army, of appendicitis, at Washington Barracks, D. C., November 23, 1902.

Capt. Franklin M. Kemp, assistant surgeon, U. S. Army, of heart disease, at Nueva Caceres, P. I., February 23, 1903.

Army medical boards for the examination of candidates for appointment in the Medical Corps of the Army have been in session during portions of the fiscal year in Washington, D. C., San Francisco, Cal., and Manila, P. I. The following is a summary of the work performed by each board:

Washington, D. C.:		
Number of candidates invited to appear		192
Declined to appear	16	
Failed to appear	35	
		51
Number of candidates examined		141
Approved		34
Physically disqualified		34
Withdrew		56
Rejected		17
San Francisco, Cal.:		
Number of candidates invited to appear		23
Declined to appear	1	
Failed to appear	4	
		5
Number of candidates examined		18
Approved		2
Physically disqualified		1
Withdrew		10
Rejected		5

Manila, P. I.:

Number of candidates examined	17
Approved	4
Physically disqualified	2
Withdrew	11

Of 176 candidates examined by these boards 37 were rejected as disqualified physically, 99 withdrew during the progress of the examination or were rejected on its conclusion, and 40 were found physically and professionally qualified and approved for appointment in the Medical Corps of the Army. The percentage of candidates approved by these boards has still further increased during the fiscal year ended June 30, 1903, to 22.73 per cent, while among candidates examined by the board in Washington the proportion of approved candidates has increased from 19.05 per cent to 24.11 per cent, notwithstanding the fact that the high standard of examination has been fully maintained.

It appears that the vacancies in the grade of assistant surgeon are being slowly filled, but that there is a small but steady loss by resignation of some of the most highly trained young medical officers because prospects in civil practice appear to them brighter and results less remote than in military life. In the Medical Corps, as at present constituted, in my opinion, too large a number of assistant surgeons compared with officers of higher grades is allowed. The present proportion, 3 to 1, is such that the junior medical officer must expect to serve about twenty-six years before promotion to the position of surgeon, whereas formerly, when the ratio was less than 2 to 1, he could confidently hope to be a surgeon in from seventeen to twenty years, with the rank and pay of major, a reward certainly modest enough when the high requirements of the Department are met. I can not but believe it to be necessary, if the corps is to be maintained in the highest possible state of efficiency, that all its functions should be performed by commissioned officers. While the employment of civilian physicians under contract is generally satisfactory as far as strictly professional work is concerned, the position of these gentlemen is at best anomalous and the legality of their actions in controlling men and fulfilling other necessary functions of an officer is often questioned. A medical corps not only adequate in number for the full strength of the Army at home and abroad, but which will allow for the administration of the Department in time of war when the military forces may be indefinitely increased, is much to be desired.

The proportion of officers of different rank should, in my opinion, be such that about twenty years service as an assistant surgeon would be the maximum.

The number of medical officers of superior rank should, in my judgment, be about as follows: Ten assistant surgeons-general, 18 deputy surgeons-general, and 75 surgeons. This estimate is based upon the present strength of the Army and its distribution by geographical departments, and upon the number of important posts, general hospitals, service schools, and supply depots now existing. Without increase in the total number of medical officers allowed by law the above number in the superior grades would nearly restore the former proportion of 2 assistant surgeons to 1 surgeon or higher.

THE ARMY MEDICAL SCHOOL.

The sixth session opened November 10, 1902, and closed April 14, 1903. The class consisted of 40 students, all of whom were assistant surgeons, U. S. Army, 37 having been appointed in 1902, 2 in 1901, and 1 in 1900. Six of the student officers were recently from the Philippine Islands, where they had served as contract surgeons and assistant surgeons, U. S. Army.

The personnel of the faculty during the session was as follows:

Col. Calvin De Witt, assistant surgeon-general, U. S. Army, president of the faculty and professor of military medicine.

Maj. Walter Reed, surgeon, U. S. Army, professor of clinical and sanitary microscopy and director of pathological laboratory.

Maj. Louis A. La Garde, surgeon, U. S. Army, professor of ophthalmology and skiascopy and lecturer on duties of medical officers in war and peace.

Maj. William C. Borden, surgeon, U. S. Army, professor of military surgery, demonstrator in operations on the cadaver and in surgical clinics.

Maj. Walter D. McCaw, surgeon, U. S. Army, professor of military hygiene.

Capt. Frederick P. Reynolds, assistant surgeon, U. S. Army, instructor in hospital corps drill and first aid to wounded.

Capt. Carl R. Darnall, assistant surgeon, U. S. Army, assistant professor of hygiene, instructor in sanitary chemistry, in charge of chemical laboratory, secretary of the faculty.

Upon the death of Maj. Walter Reed, November 23, 1902, First Lieut. James Carroll, assistant surgeon, U. S. Army, was detailed as professor of bacteriology and clinical microscopy, and in that capacity continued and concluded the course.

In addition to the above, Capt. Henry A. Shaw, assistant surgeon, U. S. Army, assisted the professor in military surgery in demonstrating surgical operations on the cadaver.

Capt. Frederick P. Reynolds, assistant surgeon, U. S. Army, in addition to his duties as instructor in hospital corps drill, etc., gave very valuable and systematic instructions to the class in the preparation of the various reports and records required of a medical officer.

First Lieut. James H. Ford, assistant surgeon, U. S. Army, gave seven lectures on tropical diseases.

The following additional courses were given at the invitation of the Surgeon-General, and for them the thanks of the faculty and the student officers are tendered:

Brig. Gen. George B. Davis, judge-advocate-general, U. S. Army, a course of most instructive lectures on military law and courts-martial; Robert Fletcher, M. D., F. R. C. S., assistant librarian of the library of the Surgeon-General's Office, on the formation and classification of the library of the Surgeon General's Office, its uses, and its index catalogue.

The need of instruction of the student officers in equitation being apparent, after some correspondence, Capt. John P. Wade, Second U. S. Cavalry, stationed at Fort Myer, Va., was detailed for that purpose, and on the afternoon of Saturday, January 3, 1903, at 2 o'clock the course was begun and continued from 2 to 4 p. m. every Saturday thereafter until March 28, 1903. This course was most valuable as some of the student officers had never before been on horseback and very few were expert horsemen. Captain Wade, by his interest, patience, and kindness won the gratitude of every student who came under his instruction.

The school hours were from 9 a. m. to 12 m. and from 1 to 4 p. m., every other day being devoted to laboratory work. As the class was the largest assembled since the establishment of the school, it was necessary to divide it into two sections; in this way one section received instruction in the bacteriological laboratory, while the other was engaged in the chemical laboratory, the sections being changed during the afternoon.

On Saturdays from 9 a. m. to 12 m. instructions in first aid and hospital corps drill were given at Washington Barracks, and in the afternoon from 2 to 4 p. m. lessons in equitation in the riding hall at Fort Myer, Va.

The biological and chemical laboratories were completel yequipped with apparatus and provided with all material necessary for the thorough instruction of the students. In the early part of the session, when preliminary work in chemistry demanded the close attention of the instructor in watching over and aiding the individual students, valuable assistance was given by Dr. E. R. Hodge, chemist of the Surgeon-General's Office, whose laboratory is in the same building, and adjacent to that of the school.

In addition to the large 16-inch-plate static machine, there was placed in the X-ray room of the Army Medical Museum and Library Building, near the close of the session, a "coil machine," with different patterns of interrupters, for producing the X-rays for the instruction of the student officers. Demonstrations in the management of these machines, also in taking and developing skiagraphs, were given by Dr. W. M. Gray, of the Army Medical Museum, under direction of Major La Garde.

At the request of the Surgeon-General of the Navy, similar demonstrations were given to the student officers of the Naval Medical School. These instructions were supplemented by two lectures on the principles of the X-ray to the students of each school by Maj. W. C. Borden, surgeon, U. S. Army.

By the courtesy of the faculty of the Navy School the student officers of the Army Medical School had the privilege of hearing a lecture of Mr. Howard, of the Agricultural Department, on mosquitoes.

Meetings of the faculty were regularly held for the transaction of business, and all actions taken were immediately referred to the Surgeon-General, when necessary.

The final examinations began March 30, 1903, and continued daily (Sundays excepted) until April 7, 1903, and after consideration by the faculty the relative proficiency of the student officers and their final standing in the class were determined.

The faculty had resolved that the student officers who should attain a standing of not less than 90 per cent in their total markings were entitled to the distinction "proficient with honor." This percentage was gained by four students, including the winner of the "Alexander H. Hoff memorial gold medal," which was awarded to First Lieut. Harry L. Gilchrist, assistant surgeon, U. S. Army, the student officer who received the highest marking at the final examination. The remaining "honor graduates" were Lieuts. S. M. De Loffre, J. W. Hanner, and E. M. Talbott. An average of 70 per cent was fixed as the minimum for graduation as "proficient," which was attained by all the class with the exception of one officer.

The closing exercises were held in the lecture hall of the U. S. National Museum, the use of which was permitted by the courtesy of the Board of Regents of the Smithsonian Institution.

The address was made by Lieut. Col. John S. Billings, deputy surgeon general, U. S. Army, retired. The certificates of graduation were given by the Hon. Elihu Root, Secretary of War, and the Hoff medal was presented to First Lieut. Harry L. Gilchrist by Brig. Gen. William H. Carter, U. S. Army, of the War College Board.

The invocation was made and the benediction pronounced by the Rev. Charles C. Pierce, chaplain, U. S. Army. The commanding officer, Maj. W. C. Black, U. S. Engineers, of the Engineer Battalion, Washington Barracks, kindly sent the band, which furnished excellent music.

The distinctive features of the course of instruction at the school are, first, the large measure of personal attention paid to the student's individual work by instructors in the laboratories and surgical demonstrators, which it is believed is not exceeded, if equalled, in any postgraduate school, and, second, the special preparation of the young assistant surgeon in his military duties as administrator, sanitarian, and officer of the Army, his responsibilities to and relations with officers of the line and staff, with enlisted men, and with the families of both, being carefully taught.

That the student officers fully appreciated the fact that their previous medical education was thus added to and completed, and that their future path of duty was made much smoother for them, is evinced by the attention and industry displayed at this last session.

The probable value of the young officer's future services may be so much better estimated after he has taken this course than before that I have now under consideration a plan by which all candidates for commission in the Medical Corps may receive this instruction as contract surgeons after examination, and by which the final recommendations for commissions shall be contingent upon their successfully passing the examinations of the school. It is believed that no additional legislation is needed to carry out this plan, which will be submitted in due time.

MEDICAL OFFICERS, VOLUNTEERS.

The provisions of the act of Congress approved February 2, 1901, allowing 50 surgeons of volunteers with rank of major and 150 assistant surgeons of volunteers with rank of captain, having expired February 1, 1903, all these medical officers were honorably discharged on or before that date. With very few exceptions their services had been most creditable, and in some cases of an exceptionally high order. Many of the volunteer medical officers acquired such a strong love for military service that, with the consent of the Secretary of War, the age limit of candidates for entrance into the Medical Corps was raised, in the case of ex-volunteers with honorable record, to include all those who were under 42 years at date of original entry into service.

Five ex-volunteer medical officers have successfully passed the examinations since February 1, 1903, and have been recommended for commission.

During the fiscal year 49 majors, surgeons of volunteers, were honorably discharged, 5 of these returning to the position of captain, assistant surgeon, U. S. Army. One major, surgeon, volunteers, was discharged on tender of resignation; 148 captains, assistant surgeons, were honorably discharged, and 2 captains, Frederick W. Cox and Frederick C. Jackson, died in service.

CONTRACT SURGEONS, U. S. ARMY.

There were 273 contract surgeons in service at the close of the fiscal year ended June 30, 1902, and during the past fiscal year contracts were made with 61 physicians, 103 annulled, and 2 terminated by death, leaving 229 in service June 30, 1903.

Very few contracts have been made except with ex-medical officers of volunteers, whose services of proved value it was desirable to retain, and by far the greater number of these are still on duty in the Philippine Islands. The net loss for the fiscal year was 44, and the number now in service will be still further reduced in the near future.

Contract Surg. Joseph J. Curry died of tuberculosis at the general hospital, Fort Bayard, N. Mex., January 21, 1903, and Contract Surg. Robert M. Enders, Sr., of nephritis, at Manila, P. I., May 24, 1903.

CONTRACT DENTAL SURGEONS.

The number of contract dental surgeons allowed by the act of Congress approved February 2, 1901, is 30. The number in service December 31, 1901, was 28. On June 30, 1902, the complement allowed by law was complete. The distribution of dental surgeons at the close of the fiscal year ending June 30, 1903, is as follows: United States, 12; Philippine Islands, 18; total, 30.

During the period January 1, 1902, to December 31, 1902, the following changes have taken place in the personnel of the corps:

Gain:	
Appointments by contract	5
Loss:	
By death	1
By annulment of contract	2
Total	3
Increase	2
Promotions	1
Total number in the service	30

Dr. Charles A. Petre, contract dental surgeon, U. S. Army, died on February 12, 1902, at Aparri, Cagayan, P. I., of pyo-nephritis and intestinal obstruction after a few days illness. One contract examining and supervising dental surgeon left the service on account of ill health, one dental surgeon was promoted to this vacancy, and one left the service to accept a second lieutenant's commission in the line.

The board for the examination of candidates for appointment as contract dental surgeons, U. S. Army, has been in session from time to time as candidates were invited to appear for examination. The following is a summary of the work performed by the individual members of the board:

		Per cent.
Number of candidates invited to appear for examination	26	
Declined to appear	0	
Failed to appear	1	
Number of candidates examined	25	
Result:		
Approved	9 or	36
Physically disqualified	2 or	8
Rejected	7 or	28
Withdrew	7 or	28
Total	25	
Declined to enter into contract	1	
Number on waiting list	3	

The percentage of candidates found qualified and approved was somewhat higher than for the year ending December 31, 1901. The report of the board for that period shows that the approved candidates formed 27¼ per cent of the number examined, while this report shows 36 per cent. The increase is accounted for by the fact that the candidates who appeared before the board during its sessions in Washington, D. C., were largely made up of recent graduates, while in the period covered by this report they were generally better qualified and many of them were men of from two to six years professional experience, which fact naturally gave them a decided advantage in the practical departments.

The following tabulated statistics of the number of patients treated for dental caries and other dental and oral diseases and injuries for the year—January 1, 1902, to December 31, 1902, inclusive—abundantly prove the great prevalence of such diseases among our troops and the need of dental and oral treatment. The whole number of officers (regular and volunteer), enlisted men, female nurses, and general prisoners of the Army treated during this period by dental surgeons is 16,161, or 20 per cent of the mean strength of the entire Army, while operations and treatments upon the teeth, gums, mouth, and jaws reach the large number of 49,483, an average of 3.06 operations for each person treated.

SUMMARY.

Whole number of patients treated and operations performed or treatments given.

	Regulars.	Volunteers.	Operations.
United States	6,932	8	18,971
Philippine Islands	8,102	51	28,115
Cuba and Porto Rico	1,068		2,397
Total	16,102	59	49,483

By direction of the Chief Surgeon, Division of the Philippines, March 1, 1902, dental surgeons were instructed to extend the courtesy of their services to such officers and enlisted men of the Marine Corps as might be in need of dental treatment, "for the relief of suffering only." This courtesy was also extended to naval officers and enlisted men, in some instances, by direction of the commanding officer of the brigade, or by the chief surgeon of the department, near which they were operating. No report has been made of the number of persons so treated, except in the single instance of the dental surgeon stationed at Tacloban, Leyte.

Whole number of patients treated during the year, January 1, 1902 to December 31, 1902, inclusive.

	United States.	Philippine Islands.	Cuba.[a]	Porto Rico.	Total.
Regulars:					
Officers	691	808	63	59	1,621
Cadets	103				103
Enlisted men	6,059	7,248	539	407	14,253
Volunteers:					
Officers[b]	8	51			59
Enlisted men[c]					
Nurses:					
Army nurse corps	37	13			50
General prisoners	42	33			75
Total	6,940	8,153	602	466	16,161
Civilian attaches:					
Male	66	48	24	14	152
Female	137	19	2	2	160
Children	5				5
Total	208	67	26	16	317
Grand total	7,148	8,220	628	482	16,478

[a] Report is for January, February, March, and April, 1902, only.
[b] Medical officers only.
[c] None in service.

UNITED STATES NAVY.

	United States.	Philippine Islands.	Cuba.	Porto Rico.	Total.
Officers		4			4
Naval cadets		2			2
Enlisted men		11			11
Total		17			17

PREVALENCE OF DENTAL AND ORAL DISEASES.

The prevalence of dental caries and other dental and oral diseases among the troops, as shown by the following tabulated statistics, is very marked, and when the fact is taken into account that officers and enlisted men have been chosen for service after a rigid examination to determine their physical perfection, and that all but those in perfect health and of good physical development are rejected, it seems evident that excessive physical and mental strain predisposes the individual to dental diseases and that great care should be exercised in the examination of the teeth, a full complement of these organs in a sound condition being such important factors in maintaining the general health of the individual.

It is the general opinion of dental practitioners and pathologists that dental diseases are rapidly increasing, and that there is a marked diminution in the resistive power of the teeth against disease. For this reason measures are being taken to teach the enlisted men the value of a proper care of the teeth and mouth, as cleanliness of the oral cavity is a very important prophylactic measure, not only for the preservation of the teeth, but for the prevention of numerous other diseases, particularly of the mouth and throat and of the digestive system. As a means of comparison the following statistics are quoted:

> The prevalence of dental caries among American grammar-school boys, according to statistics published in 1890, is 27.33 per cent. In an examination of the naval apprentices of the British training ship *Exmouth*, made at about the same period, the average age of the boys being about 14 years, it was found that 76 per cent had carious teeth, while in a recent examination of the teeth of the school children of northern Germany, whose ages were between 12 and 15 years, it was found that 94.5 per cent of them had dental caries in its various stages of development.

These statistics show conclusively the great prevalence of dental caries and its widespread dissemination among the Anglo-Saxons and Germans, who make up the great bulk of the Army. Dental diseases appear to be as prevalent among the officers and enlisted men of the Army as among individuals in civil life of the same social class, while with the troops who have served in the Philippines these diseases are much more prevalent, as a reference to the "Recapitulation of diseases and operations" will show. The increased percentage of dental diseases among the troops in the Philippine Islands over those stationed in the United States is 18.27, while among the troops in Cuba and Porto Rico it is 21.17. The increased percentage in Cuba and Porto Rico over those stationed in the Philippine Islands is due to the fact that these diseases are much more prevalent among the native troops of Porto Rico than among the white troops. Good, or at least serviceable, teeth are very necessary as a means of maintaining the general health, and consequently the highest efficiency, of an army, particularly when campaigning in the tropics, where conditions of the climate and necessary changes in the habits of life are so enervating and debilitating to the general system. Resistance to disease under these conditions is greatly lessened and the individual is consequently predisposed to a certain class of diseases, among which are dental caries, pulpitis, pericementitis, dento-alveolar abscess, pyorrhea alveolaris, necrosis of the jaws, and inflammatory and ulcerative conditions of the gums, of the oral mucous membrane, the throat, and tongue.

The following tables show the diseases and injuries treated during the year:

REGULARS.

Diseases and injuries of the teeth and gums.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Abrasion, mechanical	1	30	3	34
Abscess of the jaw, associated with impacted teeth	51	29	1	81
Calcification of the pulp	1	6	....	7
Caries	11,206	18,626	1,260	31,092
Cysts of the jaw, associated with devitalized teeth	2	7	....	9
Defective fillings	3	10	....	13
Dento-alveolar abscess	1,250	1,224	196	2,670
Devitalized pulp	681	146	48	875
Dislocation of teeth	8	3	....	11
Erosion, chemical	10	8	....	18
Erupting teeth (painful)	97	24	....	121
Fracture of the teeth	92	80	7	179
Hemorrhage, following extraction	5	7	....	12
Hypertrophy of the gums	15	39	4	58
Hypertrophy of the pulp	7	17	1	25

Disease and injury of the teeth and gums—Continued.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Hypercementosis	3	4	1	8
Impacted teeth	32	18	6	56
Irregularities of the teeth	21	25	2	48
Necrosis of the teeth	77	565	1	643
Pericementitis:				
Acute	154	134	64	352
Chronic	120	151	11	282
Pyorrhea alveolaris	214	296	17	527
Resorption of the alveolar process	27	51	....	78
Recession of the gums	1	46	5	52
Salivary deposits	1,060	2,090	236	3,386
Sensitive dentine	34	2	....	36
Supernumerary teeth	4	12	2	18
Pulp nodules	2	2	....	4
Pulpitis:				
Acute	1,029	1,687	148	2,864
Chronic	316	425	45	786
Total	16,523	25,764	2,058	44,345

Diseases and injuries of the mouth and jaws.

Cleft palate, hard	4	....	....	4
Empyema of the antrum (suppurative)	6	4	....	10
Fracture of the alveolar process	4	....	....	4
Fracture of the jaws:				
Superior	2	....	....	2
Inferior	6	3	....	9
Fracture of the jaws, gunshot wound, inferior	1	....	....	1
Gingivitis:				
Simple	88	111	4	203
Ulcerative	91	11	....	102
Leucoplakia buccalis	2	....	....	2
Mucous engorgement of antrum	3	....	....	3
Necrosis of jaws:				
Superior	2	2	6	10
Inferior	2	....	1	3
Neuralgia, facial	2	7	1	10
Osteitis, acute, resulting from impaction	....	1	....	1
Periostitis of jaw:				
Superior	9	....	13	22
Inferior	11	3	10	24
Stomatitis:				
Infectious	1	....	1	2
Simple	5	11	1	17
Ulcerative	45	21	....	66
Ulcerative syphilitic	1	....	1	2
Tumors of the jaws (radicular odontome)	....	....	1	1
Total	285	174	39	498

CHARACTER OF SERVICE.

The character of the services of the dental surgeons has changed considerably since the period covered by the last report. Then it was largely of an emergency nature, the chief aim and effort being to give relief from suffering and to return the men to duty with the least possible delay. Now, with the full complement of dental surgeons on duty, more time and attention are devoted to teaching methods of prophylaxis, to conserving the teeth by proper treatment of diseased conditions, restoring them to usefulness by inserting appropriate fillings, and replacing lost teeth by suitable crowns, bridges, or artificial dentures.

The following tables show the number and character of the operations performed by the dental surgeons for the troops in the United States, the Philippine Islands, Cuba, and Porto Rico:

Operations upon the teeth and gums.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Abscesses lanced	94	101	21	216
Excision of the gums	42	22	5	69
Pulp, capped	87	43	10	140
Pulp, devitalized	941	1,343	137	2,421
Pulp, extirpated	638	1,155	183	1,976
Root canals filled with gutta-percha	980	1,339	36	2,355
Salivary deposits removed	1,060	2,090	236	3,386
Teeth extracted	2,017	3,632	394	6,043
Teeth treated, medicated	3,339	3,517	366	7,212
Total	9,198	13,242	1,388	23,818

Operations upon the mouth and jaws.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Cleft palate, hard	4			4
Empyema of the antrum	26	4		30
Leucoplakia buccalis	2			2
Mucous engorgement of antrum	3			3
Necrosis of the jaw:				
Superior	2	2	6	10
Inferior	2		1	3
Periostitis:				
Superior	9		13	22
Inferior	11	3	10	24
Tumors of the gums				
Tumors of the jaws			1	1
Total	59	9	31	99

Restorations by fillings.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Amalgam	6,398	7,578	420	14,396
Gold	939	1,586	172	2,697
Gutta-percha	192	432	34	658
Oxyphosphate	1,259	4,072	234	5,565
Tin		22		22
Total	8,788	13,690	860	23,338

Restorations by combination fillings.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Gutta-percha and oxyphosphate	39	84	6	129
Gutta-percha and amalgam	87	105	2	194
Oxyphosphate and amalgam	396	589	6	991
Total	522	778	14	1,314

Restorations by bridges and crowns.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Bridges:				
Gold and porcelain	4	5	19	28
Gold	65	22	20	107
Reset	39	20	8	67
Crowns:				
Logan	62	27	14	103
Gold shell	73	104	20	197
Richmond	15	4		19
Reset	36	20	9	65
Total	294	202	90	586

Restorations by artificial denture.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Dentures:				
Vulcanite, partial	66	43	8	117
Vulcanite, full	1	2	1	4
Broken plate repaired	13	8	4	25
Total	80	53	13	146

Mechanical appliances for fractured jaws.

Angle appliance	2	....	....	2
Kingsley splint vulcanite	4	1	1	6
Metal splint	1	....	....	1
Total	7	1	1	9
Grand total of operations	18,988	27,975	2,397	49,320

UNITED STATES VOLUNTEERS.

Diseases and injuries of the teeth and gums.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Caries	9	105	....	114
Defective fillings	....	2	....	2
Dento-alveolar abscess	....	6	....	6
Devitalized pulp	....	3	....	3
Hypertrophy of the pulp	....	1	....	1
Necrosis of the teeth	....	3	....	3
Pulpitis, acute	....	9	....	9
Pulpitis, chronic	....	4	....	4
Pyorrhea, alveolaris	6	....	....	6
Recession of the gums	....	1	....	1
Salivary deposits	3	13	....	16
Total	18	147	....	165

Operations upon the teeth and jaws.

Root canals filled with gutta-percha	....	11	....	11
Salivary deposits removed	3	13	....	16
Teeth extracted	....	14	....	14
Teeth treated, medicated	6	14	....	20
Total	9	52	....	61

Restorations by fillings.

Amalgam	10	53	....	63
Gold	....	17	....	17
Gutta-percha	....	1	....	1
Oxyphosphate	2	12	....	14
Total	12	83	....	95

Restorations by combination fillings.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Gutta-percha and oxyphosphate	1			1
Total	1			1

Restorations by bridges and crowns.

Crowns:				
Gold shell		3		3
Richmond	1	2		3
Total	1	5		6
Grand total of all operations on United States Volunteers	23	140		163

RECAPITULATION OF DISEASES AND OPERATIONS.

	United States.	Philippine Islands.	Cuba and Porto Rico.	Total.
Mean strength of troops on duty during year 1902	39,736	37,768	3,274	80,778
Total diseases and injuries treated	16,826	26,085	2,097	45,008
Percentage	42.85	61.12	64.02	55.72
Total operations	18,971	28,115	2,397	49,483
Percentage	47.74	74.44	73.32	61.26

The large number of teeth reported as extracted in the United States and the Philippine Islands is due to the great prevalence of dental caries of an acute type among troops serving in the tropics or recently returned, which causes a very rapid destruction of teeth, making extraction necessary, because movement of troops would not in many cases permit the delay required to properly treat and fill them. It has been repeatedly impressed upon the dental surgeons by the members of the supervising board that their "chief duty was the conservation of the teeth," and that "no tooth should be extracted that gave any promise of responding to treatment or being restored to usefulness by appropriate filling or crowning, provided the individual could devote the proper amount of time and attention to the necessary treatment." The comparatively small number of restorations of teeth by crowning, bridging, and the insertion of artificial dentures is due to the fact that a majority of the dental surgeons are only furnished with an operating outfit. The mechanical laboratory is too cumbersome to be transported from station to station in the ordinary itinerary of dental surgeons, consequently all cases needing prosthetic treatment are sent to the base stations in the Philippines and to such general hospitals and large stations in the United States as have a dental surgeon on constant duty.

The following tables, compiled from 31,092 cases of dental caries treated by dental surgeons during the period covered by this report by filling or extracting, show the susceptibility of the individual teeth to this disease in troops serving in the United States, the Philippine Islands, and Cuba and Porto Rico:

Table of susceptibility to dental caries of individual teeth of troops in the United States.

Classification.		Caries.			Percentage.		
		Right.	Left.	Total.	Right.	Left.	Total.
Central incisors	upper	439	487	926	8.02	8.50	8.26
	lower	23	23	46	.42	.40	.41
Lateral incisors	upper	381	414	795	6.96	7.23	7.09
	lower	26	28	54	.47	.49	.48
Cuspids	upper	166	186	352	3.03	3.25	3.14
	lower	37	36	73	.68	.63	.65
First bicuspids	upper	408	420	828	7.45	7.33	7.39
	lower	109	115	224	1.99	2.01	2.00
Second bicuspids	upper	476	501	977	8.69	8.74	8.72
	lower	299	273	572	5.46	4.76	5.10
First molars	upper	810	783	1,593	14.79	13.66	14.22
	lower	686	664	1,350	12.53	11.59	12.05
Second molars	upper	522	601	1,123	9.53	10.49	10.01
	lower	674	736	1,410	12.31	12.84	12.58
Third molars	upper	172	187	359	3.14	3.26	3.20
	lower	248	276	524	4.53	4.82	4.67
Total		5,476	5,730	11,206	....	....	....

SUMMARY.

	Number.	Per cent.
Upper	6,953	62.05
Lower	4,253	37.95
Total	11,206	....
Right	5,476	48.87
Left	5,730	51.13
Total	11,206	....

Table of susceptibility to dental caries of individual teeth of troops in the Philippine Islands.

Classification.		Caries.			Percentage.		
		Right.	Left.	Total.	Right.	Left.	Total.
Central incisors	upper	975	896	1,871	10.60	9.51	10.06
	lower	45	62	107	.49	.66	.58
Lateral incisors	upper	730	770	1,500	7.93	8.18	8.05
	lower	55	57	112	.60	.61	.60
Cuspids	upper	318	324	642	4.45	3.44	3.44
	lower	61	52	113	.66	.55	.61
First bicuspids	upper	736	757	1,493	7.99	8.04	8.01
	lower	210	188	398	2.28	1.99	2.13
Second bicuspids	upper	785	826	1,611	8.53	8.77	8.65
	lower	392	423	815	4.26	4.49	4.38
First molars	upper	1,271	1,302	2,573	13.80	13.82	13.81
	lower	1,110	1,074	2,184	12.06	11.40	11.73
Second molars	upper	836	876	1,712	9.08	9.30	9.19
	lower	1,056	1,125	2,181	11.47	11.94	11.71
Third molars	upper	260	233	493	2.82	2.47	2.65
	lower	367	454	821	3.99	4.82	4.40
Total		9,207	9,419	18,626	....	....	....

SUMMARY.

	Number.	Per cent.
Upper	11,895	63.86
Lower	6,731	36.14
Total	18,626	....
Right	9,207	49.43
Left	9,419	50.56
Total	18,626	....

Table of susceptibility to dental caries of individual teeth of troops in Cuba and Porto Rico.

Classification.		Caries.			Percentage.		
		Right.	Left.	Total.	Right.	Left.	Total.
Central incisors	upper	75	83	158	12.52	12.56	12.54
	lower	3	5	8	.50	.76	.63
Lateral incisors	upper	64	64	128	10.68	9.68	10.18
	lower	5	6	11	.83	.91	.87
Cuspids	upper	27	40	67	4.51	6.05	5.28
	lower	4	6	10	.67	.91	.79
First bicuspids	upper	35	43	78	5.84	6.51	6.18
	lower	18	18	36	3.00	2.72	2.86
Second bicuspids	upper	36	46	82	6.01	6.96	6.49
	lower	25	44	69	4.17	6.66	5.92
First molars	upper	75	57	132	12.52	8.62	10.57
	lower	55	77	132	9.18	11.65	10.42
Second molars	upper	60	48	108	10.02	7.26	8.64
	lower	73	79	152	12.19	11.95	12.07
Third molars	upper	13	17	30	2.17	2.57	2.37
	lower	31	28	59	5.17	4.24	4.70
Total		599	661	1,260	....	....	....

SUMMARY.

	Number.	Per cent.
Upper	783	62.14
Lower	477	37.86
Total	1,260	....
Right	599	47.53
Left	661	52.46
Total	1,260	....

Summary of tables of susceptibility to dental caries in individual teeth of the United States Army as a whole.

Classification.		United States.		Philippine Islands.		Cuba and Porto Rico.		Total.	
		Caries.	Per cent.	Caries.	Per cent.	Caries.	Per cent.	Caries.	Per cent.
Central incisors	upper	926	8.26	1,871	10.06	158	12.54	2,955	9.50
	lower	46	.41	107	.58	8	.63	161	.52
Lateral incisors	upper	795	7.09	1,500	8.05	128	10.18	2,423	7.79
	lower	54	.48	112	.60	11	.87	177	.51
Cuspids	upper	352	3.14	642	3.44	67	5.28	1,061	3.41
	lower	73	.65	113	.61	10	.79	196	.63
First bicuspids	upper	828	7.39	1,493	8.01	78	6.78	2,399	7.71
	lower	224	2.00	398	2.13	36	2.86	658	2.12
Second bicuspids	upper	977	8.72	1,611	8.65	82	6.49	2,670	8.58
	lower	572	5.10	815	4.38	69	5.92	1,456	4.68
First molars	upper	1,593	14.22	2,573	13.81	132	10.57	4,298	13.82
	lower	1,350	12.05	2,184	11.73	132	10.42	3,666	11.79
Second molars	upper	1,123	10.01	1,712	9.19	108	8.64	2.943	9.47
	lower	1,410	12.58	2,181	11.71	152	12.07	3,743	12.04
Third molars	upper	359	3.20	493	2.65	30	2.37	882	2.84
	lower	524	4.67	821	4.40	59	4.70	1,404	4.53
Total		11,206	....	18,626	....	1,260	....	31,092	....

SUMMARY.

	Number.	Per cent.
Upper	19,631	63.14
Lower	11,461	36.87
Total	31,092	....
Right	15,282	49.15
Left	15,810	50.85
Total	31,092	....

A reference to these tables will show the percentage of caries for the superior central and lateral incisors, taking the Army as a whole, to be 6 per cent higher than is usually given in published statistics, while for the inferior central and lateral incisors it is practically the same. For the superior cuspids it is 1 per cent higher, and for the inferior it is 0.15 per cent higher. The percentage for the superior first bicuspids is almost identically the same, while for the inferior it is 1.50 per cent higher. For the superior second bicuspids the percentage closely agrees with the published statistics, while for the inferior it is 0.90 per cent less. In the superior first molars it is 3.58 per cent less, while for the inferior it is 6.91 per cent less. The percentage for the superior second molars is 1.43 higher, and for the inferior 0.43 per cent higher. For the superior third molars it is 1.54 per cent less, while for the inferior it is 0.13 per cent higher. The lower percentage of caries for the superior and inferior first molars is due to the fact that these teeth as a rule decay early and are frequently lost before the individual reaches the age of puberty. The smaller per cent of caries of the inferior second bicuspids may be accounted for by the fact that these teeth are very susceptible to caries and are often lost before the individual reaches the legal age for enlistment, while the smaller per cent of caries of the superior third molars is due to the fact that these teeth are very irregular in the period of their eruption and sometimes fail to erupt at all.

The following table shows the difference in the susceptibility to dental caries in individual teeth as compared with the table published in the report covering 1901. These differences are due, no doubt, to the larger number of cases forming the basis upon which the statistics are computed, and are therefore more nearly correct. The whole number of cases of dental caries treated during the year ending December 31, 1901, was 8,408, while for the year ending December 31, 1902, it was 31,092. It is an interesting fact that dental caries is distinctly more prevalent upon the left side of the mouth than upon the right side.

Table showing difference in percentages of susceptibility to dental caries of individual teeth of the United States Army, as a whole, for the years 1901 and 1902.

Classification.		Report for the year 1901.		Report for the year 1902.		Difference in percentage, 1902.
		Caries.	Percentage.	Caries.	Percentage.	
Central incisors	upper	649	7.71	2,955	9.50	+1.79
	lower	153	1.81	161	.52	−1.29
Lateral incisors	upper	505	6.00	2,423	7.79	+1.19
	lower	132	1.56	177	.51	−1.05
Cuspids	upper	294	3.49	1,061	3.41	− .08
	lower	146	1.73	198	.63	−1.10
First bicuspids	upper	600	7.13	2,399	7.71	+ .58
	lower	175	2.08	658	2.12	+ .04
Second bicuspids	upper	679	8.07	2,670	8.58	+ .51
	lower	387	4.60	1,456	4.68	+ .08
First molars	upper	1,119	13.30	4,298	13.82	+ .52
	lower	1,194	14.20	3,666	11.79	−2.41
Second molars	upper	802	9.53	2,943	9.47	− .06
	lower	878	10.44	3,743	12.04	+1.60
Third molars	upper	222	2.64	882	2.84	+ .20
	lower	473	5.60	1,404	4.53	−1.07
Total		8,408		31,092		

Table showing difference in percentages of susceptibility to dental caries of individual teeth of the United States Army, as a whole, for the years 1901 and 1902—Continued.

SUMMARY.

Classification.	Report for the year 1901.		Report for the year 1902.		Differences in percentage, 1902.
	Caries.	Percentage.	Caries.	Percentage.	
Upper	4,870	57.92	19,631	63.14	+5.22
Lower	3,538	43.08	11,461	36.87	−6.21
Total	8,408		31,092		
Right	4,306	51.21	15,282	49.15	−2.06
Left	4,102	48.78	15,810	50.85	+2.07
Total	8,408		31,092		

The foregoing interesting tabulations, with professional comments, have been ably prepared for this report by Dr. John S. Marshall, contract examining and supervising dental surgeon, U. S. Army. The work of the contract dental surgeons has been of a high order and deserves commendation. Reports from experienced officers of the Army indicate that appreciation of the faithful and efficient services of the army dentist is steadily growing among officers and men.

The average number of enlisted men detailed from the Hospital Corps as "dentists' assistants" and "clerks" for the year January 1, 1902, to December 31, 1902, inclusive, was 36. These men deserve mention, for without the valuable assistance they were able to perform, after they had been trained in their new duties, the great amount of service that has been rendered by the dental surgeons could not have been accomplished.

HOSPITAL CORPS.

At the date of last report, June 30, 1902, the strength of the Hospital Corps was as follows:

Hospital stewards	271
Acting hospital stewards	405
Privates	3,366

Since then it has gained:

By enlistment	636
By transfer	302
Return from desertion	15

And lost during the same period:

By discharge by expiration of service	1,522
By discharge by order	139
By discharge by sentence of general court-martial	35
By discharge on surgeon's certificate	68
By retransfer to line	19
By retirement	7
By death due to disease	42
By death due to suicide	4
By death due to wounds	1
By death due to drowning	2
By desertion	124

Leaving in service June 30, 1903:

Sergeants first class	279
Sergeants	313
Corporals	10
Privates, first class	1,668
Privates	762

A most important advance in the interest of the corps was made by the proviso in the act making appropriation for the Army for the fiscal year 1904, directing changes in grades and pay, creating the grade of corporal, and authorizing the Secretary of War to organize companies of instruction, ambulance companies, field hospitals, and other detachments of the Hospital Corps, as the necessities of the service may require.

This act abolished the obsolete titles of hospital steward and acting hospital steward, which had no analogy with the titles of noncommissioned officers in other branches of the service, and substituted therefor the grades of sergeant first class, and sergeant; created the grade of corporal for certain members of the corps who may have an aptitude for controlling men, but do not possess the technical education to pass the rigid examination required for promotion to the grade of sergeant; divided the privates into two classes, and rated their pay at $18 and $16 per month, respectively.

Sergeants first class.—At the date of last report 29 vacancies existed in the grade of hospital steward. These vacancies were filled September 1, 1902, from the acting hospital stewards securing the highest marks in a competitive examination held in May, 1902.

During the year 25 vacancies have occurred among the sergeants first class, as follows:

Discharge by expiration of service	9
Discharge by favor	3
Discharge by order	2
Discharge by sentence of general court-martial	2
Died	2
Suicide	2
Retired	3
Deserted	2

From May 4 to 9 of this year a competitive examination was held to fill these vacancies. Sixty-nine sergeants in the United States applied for authority to appear for examination. Of this number 4 withdrew before examination, 17 were not recommended by the examining board, 5 applications were disapproved, 4 were absent from their post, 1 was sick, 1 declined the examination, and 1 deserted. In the Division of the Philippines 24 sergeants applied for examination. Of these 23 were approved, 1 was disapproved, 7 withdrew prior to and 1 during the examination. Of the 14 who completed the examination 12 were recommended by the local board for promotion.

During the year 126 privates were appointed sergeants. Of this number 7 were appointed by the Surgeon-General and 119 by chief surgeons of departments.

The papers presented by the men examined for appointment to the grades of sergeant first-class and sergeant show that the high standard required from this very excellent class of men is being maintained.

Ten corporals have been appointed at posts within the United States. Six appointments were allowed to the Division of the Philippines.

Thirty-five lance corporals were also appointed by chief surgeons of military departments within the United States.

Recruitment.—Owing to the reduction it was necessary to make in the Hospital Corps during the year, active recruitment was suspended early in December, 1902, and reenlistments restricted to men who had excellent discharges or possessed some special qualifications. As it was evident these instructions would reduce the corps by June 30 to about the maximum strength allowed by the Secretary of War, a request was made to the Adjutant-General on June 27 that recruiting officers be notified that it was desired to resume recruiting for the corps, and also be requested to submit the names of desirable men to this office for authority to enlist them.

The reduction of our forces in the Philippines left a surplus of Hospital Corps men in those islands. To reduce this number to the allowance for troops serving in the tropics, viz, 5 per cent for American troops and 3 per cent for native scouts, further transfer of privates to that division was suspended in October, 1902. On June 27 a communication was received from the Chief Surgeon, Division of the Philippines, stating that the strength of the corps in that division had been reduced to the allowance quoted above. A request was therefore made that the Commanding General, Department of California, be directed to send 25 privates, Hospital Corps, to the Philippines on the transport sailing from San Francisco on July 1.

The distribution of the Hospital Corps at the date of this report is as follows:

Department.	Sergeants first class.	Sergeants.	Corporals.	Privates first class and privates.	Total.
California	11	17		105	133
Colorado	11	10		75	96
Columbia	15	10		105	130
Dakota	8	10		75	93
East	45	50		400	495
Lakes	5	13		84	102
Missouri	12	24		166	202
Texas	4	11	1	58	74
Independent	41	67	9	488	605
Total in United States	152	212	10	1,556	1,930
Cuba	3	6		28	37
Porto Rico	2	4		26	32
Hawaii	1	2		12	15
China	1			5	6
Philippines	115	86		780	981
Transports	5	3		23	31
Total	279	313	10	2,430	3,032

Two companies of instruction for Hospital Corps men have been in operation during the present year, one at Washington Barracks and one at Angel Island. It is my desire and intention that newly enlisted men shall be sent to these schools for a four months course of instruction. Up to the present time it has not been possible to carry out this scheme in all cases. In the early part of the year the demand in the Philippines made it necessary to send men to that division before they had completed their course of instruction, and after December, when active recruiting was suspended, it was not practicable to furnish the men required by the schools. It is hoped that these difficulties can be avoided in future.

A board of medical officers was convened in Washington per paragraph 23, Special Orders 104, current series, Adjutant-General's Office, to decide upon a uniform system of instruction for the companies and for detachments of the corps throughout the Army; also to revise the drill regulations. The board rendered its report June 27, and has recommended a very complete scheme of instruction for both detachments and companies, which it is believed will prove satisfactory. The board also recommended some sweeping changes in the drill regulations of the Hospital Corps, which proposed regulations are now being printed and will be submitted to the Medical Corps for its opinion before receiving the approval of this office.

Company of Instruction No. 1, Hospital Corps, at Washington Barracks, D. C., has been of special value to the Medical Department, as it is used in connection with the General Hospital to instruct student officers at the Army Medical School in drill, first aid, field exercises, and administration. Capt. F. P. Reynolds, assistant surgeon, U. S. Army, commanding the company, reports as follows:

> Besides the training of privates and noncommissioned officers, the work of the medical officers and noncommissioned officers of the company has chiefly been directed toward perfecting the organization and course of instruction. Under date of May 13, 1903, a complete outline of the company organization and course of instruction was submitted to the Surgeon-General, with the recommendation that it be submitted to the board of medical officers appointed by paragraph 23, Special Orders 104, current series, headquarters of the Army, to recommend a course of instruction for companies and to prepare a scheme of instruction for detachments.
>
> The experience of this company has been that the permanent cadre of a company of instruction, as provided in paragraph 49, Manual for the Medical Department, 1902, is insufficient. For this reason, on October 21, 1902, authority was requested to maintain a larger permanent personnel than that prescribed. The regulation referred to allows 2 sergeants first class, 8 sergeants, and 6 privates as the permanent cadre, with permission to increase the number of noncommissioned officers as may be necessary. In the line of the Army, under its present organization, the number of noncommissioned officers per company are: 16 in the cavalry, 18 in the infantry, 20 in the engineers, 21 in the field artillery, and 22 in the coast artillery. It must be apparent that the proportion of noncommissioned officers in a company of instruction, which consists chiefly of recruits, should be at least as large as in a company of the line having a personnel which changes but little from month to month. With equal clearness it may be seen that a Hospital Corps company of instruction requires an additional complement of noncommissioned officers as instructors, of which companies of the line have no counterpart. To carry out the course of instruction and for other necessary duties, it is my belief that the permanent cadre of noncommissioned officers should be increased to 14, and that it would be advantageous to have 8 others who are to be considered as being under instruction in the noncommissioned officers' class. Besides constituting a eserve of noncommissioned officers available at all times for the needs of the service, the additional 8 noncommissioned officers under instruction would enable the company to be prepared at once to furnish the full number of noncommissioned officers and privates to man a field hospital or an ambulance company, as organized under present field regulations.
>
> Twenty noncommissioned officers is not an excessive number for a company, as has been shown, and for a company of instruction of 100 to 150 men the number is, I believe, not beyond the needs of the organization if it is to be maintained at its highest efficiency.
>
> The regulation allowance of 6 privates for permanent company duty is also insufficient. The duties attached to the positions which the permanent men must occupy are of such a nature that they can not satisfactorily be performed by recruits or by men temporarily detailed. It takes many months to learn these duties, and when the men become proficient it is manifestly advisable to retain them. Moreover, it is important that there be in a company of instruction a considerable number of men of some service and who are thoroughly trained and well disciplined.

The present organization of the company is as follows:

Officers:	
Captain, Medical Department	1
First lieutenant, Medical Department	1
Noncommissioned officers:	
First sergeant	1
Quartermaster sergeant	1
Mess sergeant	1
Company clerk	1
Police and stable sergeant	1
Instructors and assistant instructors	9
Total	14
Privates on special duty, permanent cadre:	
Cooks	2
Kitchen police	2
Dining-room attendant	1
Property attendant	1
Ambulance driver	1
Night watchman	1
Clerks	2
Musicians	2
Artificer	1
Total	13

In the absence of a definite curriculum, prescribed by the Surgeon-General, the course of instruction is as follows:

(1) Discipline and duties of a soldier; (2) bearer drill; (3) first aid; (4) field work; (5) care of animals; (6) anatomy and physiology; (7) cooking and diet cooking; (8) nursing; (9) materia medica and pharmacy; (10) clerical work. For noncommissioned officers, in addition to the above: (11) Elementary hygiene; (12) minor surgery; (13) Army Regulations; (14) mess management.

First month (daily, except Saturday and Sunday):
- Anatomy and physiology.
- Clerical work.
- Bandaging.
- Bearer drill.
- Calisthenics and company drill.

Second month:
- Clerical work.
- First aid.
- Care of animals.
- Bearer drill.
- Calisthenics and company drill.

Third month:
- First aid.
- Nursing.
- Diet cooking.
- Materia medica.
- Bearer drill. Practical field work.
- Calisthenics and company drill.

Fourth month:
- Nursing.
- Pharmacy.
- Materia medica.
- Field exercises.
- Calisthenics and company drill.

Saturday:
- Inspection. Duties of a soldier.
- Articles of war. Company regulations.

Calisthenics are given in accordance with the United States Army Manual for Calisthenic Exercises.

This course has been based upon existing regulations which define the duties of the Hospital Corps in garrison and in the field. During the year there have been prepared and printed complete outlines of each course. These outlines have also been submitted to the Surgeon-General for his approval. There has also been prepared by the instructor in materia medica and pharmacy an outline and manual for instructors and classes in these subjects. In view of the immediate need of such an outline, it was on March 24, 1903, submitted to the Surgeon-General with the recommendation that it be published for the use of the Medical Department of the Army.

The need of a manual of Hospital Corps instruction is, I think, felt by all medical officers of the Army. The lack of such a manual has greatly interfered with the work of this company, and it was for this reason that definite and complete outlines of each course were prepared.

It is hardly reasonable to expect that a man on completing four months of instruction in a company is well instructed in all his duties. Many duties, such as nursing and dispensary work, require many months of practical training to reach proficiency. In other branches of the service a man is hardly out of the recruit class in four months and is not considered well instructed in less than in a year. It is to be expected, however, that four months in a company should make an average recruit a soldier who has a knowledge of discipline and understands what is expected of him, and who is capable of performing with some degree of skill most of the duties of the Hospital Corps in garrison or in the field.

This company is of special importance to the Medical Department for the reason that it is available for the instruction of student officers in the Army Medical School, in field exercises, and in Hospital Corps administration, instruction, and discipline. It also provides opportunity to make practical tests of articles of field equipment, and is prepared to demonstrate at any time the organization and work of a field hospital or an ambulance company, having at hand the specified equipment and men trained in their duties. The company, therefore, can at once take the field, either as an ambulance company or a field hospital. The company has represented the Medical Department of the Army in numerous public ceremonies, which during the past two years have included the inauguration of President McKinley, his funeral ceremonies, ceremonies connected with the dedication of the Rochambeau monument and of the Army War College. Numerous public exhibitions have been given which have been largely attended and have excited considerable interest in Hospital Corps instruction and in the new field organization and equipment of the Medical Department. The company attended the encampment of the National Guard of Pennsylvania at Gettysburg, Pa., going and returning by marching, at which point it established a regimental hospital. At the Army maneuvers at Fort Riley, Kans., during the past autumn, the company organized and largely manned both Field Hospital No. 3 and Ambulance Company No. 3. It also manned the field hospital provided for the use of the Grand Army of the Republic at its recent encampment in this city.

Company of Instruction No. 2, Hospital Corps, at Fort McDowell, Angel Island, Cal., has, besides its regular work of instruction, the care of all casual members of the Hospital Corps awaiting transportation to the Pacific islands or assignment to station on return therefrom.

The discipline, management, and instruction of this company have been worthy of high praise. A report descriptive of the organization and its method was contributed by the company commander, Capt. John S. Kulp, assistant surgeon, U. S. Army, from which the following is taken:

A receiving and distributing depot for the Hospital Corps, denominated the "School of Instruction," had existed at Fort McDowell since September 8, 1899, and at the time of my arrival, on March 19, 1902, had 1 steward, 1 acting steward, and 55 privates. The instruction consisted of thirty minutes setting-up drill, one hour study, one hour either litter drill or diet cooking, one lecture, and one hour of bandaging for five days of each week.

The objects in view in organizing a company from this school were to build up a permanent military organization on a strong official footing which should (*a*) furnish at regular intervals a definite number of instructed men, (*b*) provide candidates for vacancies in the noncommissioned grades, and (*c*) shelter and instruct a varying number of casuals. In furtherance of this idea a temporary course of instruction of one month's duration was put into operation while building up a permanent cadre and instructing its personnel in their duties. With the approval and assistance of the chief surgeon (now Surgeon-General) a number of noncommissioned officers and privates were brought together and given specific minutely outlined duties. A noncommissioned officers' school was organized, and a company council met regularly to consider ways and means to insure progress and improvement. The ideal in mind has been to cause the certificate of qualification to signify that its holder is an instructed sanitary soldier, ready to fill any ordinary position in hospital or field, and for this reason the course is practical, rather than theoretical, and attention is invited to the nursing, cooking, first aid, and field work in this connection. The situation of the company is on an island with an ideal climate, where it is brought into constant competition with other military organizations and yet is independent of a general hospital.

Paragraph 49, Manual for the Medical Department, 1902, gave the first competent authority for the organization, and this was afterwards confirmed by direct authority of the Secretary of War, dated November 8, 1902, and still later by act of Congress, March 2, 1903.

The company organization is 1 captain, 1 lieutenant, 1 first sergeant, 4 class officers, 3 noncommissioned instructors, 1 drill sergeant, 1 quartermaster-sergeant, 1 chief clerk, 2 clerks, 2 cooks, 1 carpenter, 1 messenger, 1 ambulance driver, and 4 police. In addition to the four classes there are two casual squads, and the average personnel is 120. During the last year 985 men have been on duty with the company. The duties of the permanent cadre are:

Company commander, also instructor in hygiene.

First lieutenant, also instructor in first aid, ward work, and minor surgery.

First sergeant, instructor in regulations, discipline, and soldierly efficiency; responsible for the appearance of the personnel, buildings, and grounds, for the prompt rendition of official reports, for the company fund, and for the duty roster.

Quartermaster-sergeant, in charge of property and property papers; in charge of mess.

Chief clerk, general supervision of all papers (except those relating to property), preparation of data for reports, personally checks and mails reports, instructor in clerical work.

First duty sergeant, in charge of second-class field hospital camp, of drill (ambulance, infantry, litter, setting-up, and tent), instructor in theoretical first aid.

Second duty sergeant, assistant instructor in practical field work and drills; in charge of casuals.

Third duty sergeant, instructor in management and care of animals; in charge of quarters.

Fourth duty sergeant, class officer of the first class; instructor in bandaging and ward management.

Fifth duty sergeant, class officer of the second class; second in command of field hospital; instructor in pharmacy.

Sixth duty sergeant, class officer of the third class; instructor in materia medica.

Seventh duty sergeant, class officer of the fourth class; instructor in elementary anatomy and physiology.

First clerk, descriptive book, descriptive lists, information slips, copy of muster roll, return of the personnel, pay rolls, general typewriting, and other office work.

Second clerk, letters received, letters sent, clothing book and schedules, sick report, copy of muster roll and return of personnel, and general office work.

Female nurse, instructor in nursing and diet cooking.

The general scheme of instruction is a four months course with eight hours of daily work. The end in view is to produce good all-round men for the service of post hospitals and to have them so thoroughly grounded in their military duties that in case of war each graduate could perform efficient service as a noncommissioned officer. Many of them become noncommissioned officers as soon as an opportunity presents itself, for the final examinations are rather more difficult than are those usually given for the grade of sergeant. Beyond all else it is recognized that these men are not embryo doctors, medical students, nor "soldier boys," but enlisted men whose duty in time of peace is hardly less important than during actual war, and only men of excellent character are selected for the classes. The earnestness and rivalry which exists, not only among the pupils, but among the instructors themselves, is most gratifying, and it is believed that every man who has received the certificate of graduation is at least well started toward a knowledge of the multifarious duties of the sanitary soldier, besides which his experience has not been gained at the expense of the sick in hospital.

The course itself may be briefly outlined as follows:

Practical courses.—(*a*) Field work: At the end of the third month the second class goes into camp for a week as a field hospital subpost. The island affords numerous suitable positions which are but a few miles from the post, and which in this climate are comparatively comfortable throughout the year. During this week the class receives practical instruction in camp sanitation, with especial reference to the development and protection of water supplies, the making and disinfection of sinks, the protection from flies and mosquitoes, the care and use of field-hospital property, camp cooking, drainage, and disposal of waste, and the administration of field wards.

(*b*) Practical first aid: This is taught at almost every drill, and the handling of supposititious patients is introduced whenever possible. Temporary dressing and ambulance stations are frequently made.

(*c*) A good road encircles the island, and the classes are sent out for practice marches at least once a week.

(*d*) Care of animals: A new barn is under construction, and it is hoped that the Quartermaster's Department can be induced to furnish horses for the exclusive use of the company. The fourth class now receives daily instruction in grooming, saddling, harnessing, and the care of ambulances and wagons at the quartermaster stables. At the dairy barn at the post hospital each member of this class is taught feeding, milking, and the care of cows and poultry.

(*e*) Elementary materia medica: Especial reference is given to the handling, weighing, and measuring of drugs so as to acquire a knowledge of their general gross appearance. (Forty hours.)

(*f*) Elementary pharmacy: The actual processes are carried on by each member of the class and are repeated until he shows proficiency. The underlying principle is that it is better for a man to know how to make a seidlitz powder than to tell how to make it.

(*g*) Bandaging (forty hours): Actual practice with systematically graded course.

(*h*) Dictation: Many intelligent men have never received instruction in penmanship. In the fourth class ten hours are devoted to this subject, and such men as are unable to profit by it are weeded out. Later in the course (ten hours in the second class) the preparation of papers is taught to such as show an aptitude for clerical work.

(*i*) Drill—ambulance, litter, foot, setting-up, and tent: Sixty hours are devoted to these subjects, and in addition the company takes part in the evening parade on five days of the week. The march in review has an excellent effect on the morale of the organization, as it allows comparison and brings it into competition with both the infantry and artillery.

(*j*) Diet cooking: Sixteen hours for each section of four men. In this course the idea is to teach each man to prepare about a dozen simple palatable dishes (using the components of the ration to a large extent) rather than to become a cook. The men not only individually prepare the food, but individually eat what they have prepared.

(*k*) Practical nursing and ward management: Ward classes of four men each at the post hospital receive thirty hours each in the last month of the course. The instruction is as clinical as it can be made, taking the cases from their admission at sick call until their discharge from hospital. The class assists at minor operations, makes dressings, administers medicines, handles ward property, and especial attention is given to the instruction concerning the thermometer, hypodermic syringe, and baths.

Theoretical courses.—(*a*) Elementary anatomy and physiology: Forty hours in the third and fourth classes.

(*b*) Regulations: Ten hours in the fourth class. A portion of the Articles of War are read after each Saturday inspection.

(*c*) Nursing: Thirty-five hours in the second and third classes.

(*d*) First aid, recitations: Ten hours in the first class.

(*e*) Hygiene: Eight hours in the first class.

(*f*) Military duties of the sanitary soldier: Eight hours in the first class.

The daily routine may be briefly tabulated as follows:

Hour.	Fourth class.	Third class.	Second class.	First class.
6 to 6.20	Setting-up drill	Setting-up drill	Setting-up drill	Setting-up drill.
7 to 8	Stables			Ward class.
8 to 9	Study	Study	Pharmacy	Pharmacy.
9 to 10	Drill	Drill.	Drill	Ward class.
10 to 11	Elementary anatomy	Elementary anatomy	Clerical work	Minor surgery.
11 to 12	Dictation, first aid	Materia medica	Materia medica	First aid.
2 to 3	Bandaging	Bandaging	Diet cooking	Diet cooking, hygiene.
3 to 4	Regulations	Nursing	Nursing	Ward management; military efficiency.
4 to 5	Study	Study	Diet cooking	Diet cooking

In addition to the four regular classes under instruction there is usually a number of men casually at the company. This is composed of those awaiting assignment to station, en route to or recently returned from the colonies, about to be discharged, or sent here for discipline. The latter class, although rather numerous, gives but little trouble. If the man appears incorrigible, he is discharged without honor; otherwise, if still of value to the service, he is given a chance to reform, and a considerable percentage turns out fairly well. If hopelessly inefficient and yet of good character, his honorable discharge is requested for the good of the service. The ignorance of some noncommissioned officers and men of long service is simply phenomenal and forms the strongest argument for sending all recruits to one of the companies. Recruits undoubtedly furnish the best class of men for instruction, and even those transferred at posts to fill existing vacancies could receive better training in companies than in the ordinary detachment.

The personnel under instruction in the classes has been of fairly constant quality. Four months (one-ninth of an entire enlistment) is considered too long a time to devote to any but the better class of men. Previous experience has taught the unwisdom of allowing detachment commanders to recommend men under their command, and the larger sources of supply have been recent reenlistments and recruits. Of the two, as has been said, the recruit is the more desirable and gives better results, as little can be done with the older men. Men of bad character and intemperate habits have not been placed in the regular classes, and 24 have been discharged without honor.

In these companies the permanent cadre is practically the organization itself, and in this one the allowance is rather meager. There is no apparent necessity why the surgeon of the post should be connected with the company, but if considered advisable to continue one officer in the dual role there should be two junior officers instead of one, as the conduct of the medical department of a four-company post, if properly done, requires the entire time of one officer. The time of the men under instruction is so fully taken up that the ordinary post fatigue, kitchen police, and other details are best performed by casuals or permanently attached privates, and it is found that eight hours practical and theoretical work a day is all that can be given with advantage to men so unused to sustained mental effort.

The noncommissioned officers having once qualified as instructors, become more and more valuable with every recitation they conduct, and their tenure of office should be indefinite. An everlasting change of personnel robs the company of "a character of fixity, that true sign of the law," and seriously lowers the quality of its results. Among other things, a modern barracks is sorely needed, as the one now occupied is more interesting to the antiquarian than to those who must, perforce, inhabit it.

Customs, traditions, and an esprit de corps are being formed, the organization takes the same part in the life of the post as other companies, and every month shows both progress and improvement.

In closing this report no truer remark can be made than that of the Surgeon-General, who, in his annual report of ten years since, said: "It would seem, therefore, that no more important duty now attaches to the Medical Department of the Army than the proper training of the men of the Hospital Corps and the perfecting of its organization."

ARMY NURSE CORPS.

At the close of the fiscal year 1902 there were 118 nurses in the service. During the fiscal year 1902-3 there have been 35 appointments and 54 discharges, leaving 99 nurses on the active list June 30, 1903, distributed as follows: United States Army General Hospital, Presidio of San Francisco, Cal., 40; United States General Hospital, Fort Bayard, N. Mex., 12; Hospital Corps Company of Instruction, Fort McDowell, Cal., 1 dietist; First Reserve Hospital, Manila, P. I., 31; Convalescent Hospital, Corregidor Island, P. I., 6; Base Hospital, Iloilo, P. I., 6; at home awaiting discharge, 2; en route to the Philippine Islands, 1.

Last year nurses were serving at eight of the United States Army hospitals, this year at only six—three in the United States and three in the Division of the Philippines. The withdrawal of the greater part of the troops from Calamba and Dagupan, Luzon, P. I., reduced the number of patients at these places so much that the services of trained nurses were no longer required.

The health of the corps has been excellent. There has been but one death among those on the active list since 1899; none since the last report.

The work of the corps as a body deserves high commendation. It has been faithfully and intelligently done, and the individual members have shown themselves zealous and readily amenable to the rigid discipline of our military hospitals.

MEDICAL AND HOSPITAL SUPPLIES.

Several important questions having to do with the equipment of the Medical Department have received appropriate action during the current year.

The supply of surgical instruments and appliances at posts, representing the purchases of forty years, had become so heterogeneous in character and many of them so unsuited to the requirements of modern aseptic surgery that it was felt the time had arrived to replace them by a modern and uniform equipment. Instructions were, therefore, given through the chief surgeons for the condemnation of all instruments carried in the Manual for the Medical Department as obsolete, except such cases as could be remodeled to conform with the supply table without prohibitory expense.

Steps had been already taken toward the accumulation of an adequate reserve of field medical equipment for war. This most necessary provision has been energetically prosecuted during the year, and the department has now on hand or under contract a complete field equipment for both field and regimental hospitals of five army corps, except the articles furnished by the Quartermaster's Department. A moderate surplus has been also provided to meet the requisitions for the National Guard made by the governors of States under the act for the equipment of the militia approved March 2, 1903.

Steps have been taken to carry into operation the scheme of containers for medicines invented by Capt. Edward L. Munson, assistant surgeon, U. S. Army, and adopted in the Supply Table, 1902, which provides that all bottles shall bear a definite relation, as regards cubic space occupied, to the standard unit liter bottle, so that two, four, eight, or thirty-two of the smaller sizes or various combinations of these sizes may be packed in the same space as the 1-liter bottle. All bottles are packed in corrugated cardboard cartons, the thickness varying with the size of the bottles. The 1-liter bottle in its carton constitutes the packing unit, measuring 7 by 5 by 5 inches, and all combinations of smaller bottles when packed have the same dimensions. No other packing material except the cartons is needed.

The dimensions proposed for packages of medicines prepared for shipment are: For railroad and wagon transportation, 35 by 15 by 14 inches, inside measure; for pack-mule transportation, 28 by 15 by 15 inches, inside measure. These packages will receive 48 and 36 packing units, respectively, and will weigh approximately 105 and 90 pounds.

RECRUITING.

In 1902 a total number of 45,218 white and colored candidates was examined for enlistment, of whom 30.176 were accepted, or almost exactly two-thirds of the number applying. Of 42.183 white men 27,790 were accepted, and of 3,035 colored men 2,386 were accepted.

Monthly reports of examinations of recruits from the Philippine Islands, as far as received, show that in 1902, 736 native Malays were examined for the companies of Philippine Scouts and that only 20 were rejected.

Eighteen American Indians were also examined, of whom 14 were enlisted as scouts.

Of every thousand accepted men 781.05 were born in the United States, 64.76 in British territory, 42.25 in Germany, and 8.79 in Norway and Sweden.

As usual, the greatest number of rejections were for defects of physique, while diseases of the eye, diseases of the genito-urinary system, venereal diseases, and hernia caused the next largest percentage of rejections in the order named.

Number of white and colored applicants for enlistment examined physically during the year 1902, with the number accepted, rejected on primary examination, and declined, with ratios per thousand.

	White.		Colored.		Total.	
	Number.	Ratio per 1,000 examined.	Number.	Ratio per 1,000 examined.	Number.	Ratio per 1,000 examined.
Examined	42,183	1,000.00	3,035	1,000.00	45,218	1,000.00
Accepted	27,790	658.80	2,386	786.16	30,176	667.34
Rejected	10,805	256.14	523	172.32	11,328	250.52
Declined	3,588	85.06	126	41.52	3,714	82.14

Nativity of white and colored recruits accepted during the year 1902, with ratios per thousand.

Nativity.	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States	23,569	781.05	2,372	78.61	25,941	859.66
England	428	14.18	2	.07	430	14.25
Scotland	104	3.45			104	3.45
Wales	17	.56			17	.56
Ireland	1,031	34.17			1,031	34.17
Canada	311	10.31	1	.03	312	10.34
Other British	63	2.09	8	.26	71	2.35
France	36	1.19			36	1.19
Belgium	17	.56			17	.56
Holland	21	.70			21	.70
Denmark	112	3.71			112	3.71
Norway	83	2.76			83	2.76
Sweden	182	6.03			182	6.03
Germany	1,275	42.25			1,275	42.25
Switzerland	74	2.45			74	2.45
Austria	138	4.57			138	4.57
Bohemia	30	.99			30	.99
Hungary	22	.73			22	.73
Poland	25	.83			25	.83
Russia	137	4.54			137	4.54
Finland	12	.40			12	.40
Italy	46	1.52			46	1.52
Others	57	1.89	3	.10	60	1.99
Total foreign	4,221	139.88	14	.46	4,235	140.34
Grand total	27,790	920.93	2,386	79.07	30,176	1,000.00

Causes of rejection among 45,218 candidates for enlistment examined during the year 1902, with ratios per thousand.

Number examined	White, 42,183.		Colored, 3,035.		Total, 45,218.	
Causes of rejection.	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.
Venereal diseases	910	21.57	105	34.60	1,015	22.45
Other infectious diseases	130	3.08	6	1.98	136	3.01
Diseases of nutrition, general	52	1.23	3	.99	55	1.22
Diseases of the nervous system	77	1.83	3	.99	80	1.77
Diseases of the digestive system	806	19.10	26	8.57	832	18.40
Diseases of the circulatory system	1,314	31.15	48	15.82	1,362	30.12
Diseases of the respiratory organs	133	3.15	2	.66	135	2.99
Diseases of the genito-urinary system	1,014	24.04	29	9.55	1,043	23.07
Diseases of the lymphatic system and ductless glands	63	1.49	10	3.29	73	1.61
Diseases of the muscles, bones, and joints	123	2.92	3	.99	126	2.79
Diseases of the integument and subcutaneous connective tissue	228	5.41	13	4.28	241	5.33
Diseases of the eye	1,414	33.52	55	18.12	1,469	32.49
Diseases of the ear	145	3.44	7	2.30	152	3.36
Diseases of the nose	20	.47	2	.66	22	.49
Hernia	465	11.02	25	8.24	490	10.84
Other injuries	85	2.01	4	1.32	89	1.97
Overheight	2	.05	....	....	2	.04
Underheight	40	.95	3	.99	43	.95
Overweight and obesity	16	.38	2	.66	18	.40
Underweight	485	11.50	9	2.96	494	10.92
Imperfect physique	1,620	38.40	58	19.11	1,678	37.11
Mental insufficiency	30	.72	....	....	30	.66
Over age	10	.24	1	.33	11	.24
Minor	469	11.12	8	2.64	477	10.55
Married or having dependent relatives	106	2.51	3	.99	109	2.41
Illiteracy	31	.73	4	1.32	35	.77
Imperfect knowledge of English	23	.54	....	....	23	.51
Reenlistment disapproved for various reasons	37	.88	3	.99	40	.88
Character, bad or doubtful	115	2.73	10	3.29	125	2.76
Reference, none or unsatisfactory	24	.57	....	....	24	.53
Aliens	6	.14	....	....	6	.13
General unfitness and undesirable	512	12.14	17	5.60	529	11.70
No vacancies	5	.12	4	1.32	9	.20
Unclassified	295	6.99	60	19.77	355	7.85
Total	10,805	256.14	523	172.32	11,328	250.52

IDENTIFICATION OF DESERTERS AND OTHER UNDESIRABLE MEN.

Up to the end of June, 1903, 3,028 cases of identity have been reported to the Adjutant-General, U. S. Army. Of the total number there have been 32 failures to identify, either from lack of sufficient evidence or on account of the death, escape, or desertion of the individual before the case could be thoroughly investigated.

Of the 2,533 cases of identification up to the end of 1901, 656 men were held to service, 1,130 were dishonorably discharged, 469 deserted, and 278 were reported for the information of the Adjutant-General, the men being out of service at date of report.

During the last half of the fiscal year the identification section has furnished to the Pension Bureau a great amount of evidence from the outline cards and examination forms of recruits. From January to June, inclusive, 5,674 calls for such evidence from the Commissioner of Pensions were answered. I understand that the information furnished as to defects recorded at enlistment has materially assisted in the prompt settlement of many pension claims without the expense of special examinations, and has therefore saved the United States a considerable amount of money.

HEALTH OF THE ARMY.

The admission rate per thousand of strength of the whole Army for disease and injury in 1902 was 1,716.51, a slight improvement upon the rate of 1901, which was 1,791.59. Discharges for disability gave a rate of 23.32, considerably larger than in the foregoing year, in which 19.95 discharges per thousand were reported. Deaths in 1902 caused a loss of 15.49 men for each thousand of strength, a rate decidedly ahead of that for 1901, which was 13.94, but 3.54 per thousand died of cholera, and excluding these the death rate for 1902 would have shown improvement over the previous year.

In the United States the admissions were 1,343.77 and deaths 7.83 per thousand, compared with 1,550.25 and 6.90 in 1901.

In the Pacific islands 2,144.75 admissions and 24.31 deaths per thousand compare very unfavorably with 1,928.14 and 17.96 in 1901, but cholera caused the death of 7.57 soldiers out of every thousand in the islands.

In Cuba and Porto Rico the army had much less sickness and death than in the United States or Pacific islands, the admission rate there of 1,300.24 and a death rate of only 6.72 show that our troops on these islands are as healthy as was the whole army at home during the decade 1888–1897 prior to the Spanish war, when sickness and mortality were the lowest ever recorded.

The greatest noneffectiveness from disease and injury in the United States was reported in January, February, and March, in which months the sick report of troops at home was larger than in the Pacific islands. In March the cholera epidemic began in Manila and the island rates began at once to increase, the greatest number of admissions and the highest monthly mortality being reported in July.

A great reduction in the number of military posts in the Philippine Islands has taken place and from many of the more inaccessible stations troops have been withdrawn. The present force is therefore distributed so as to allow the best possible sanitary conditions to obtain. Until barracks are constructed for the permanent garrisons the troops are exposed unavoidably to the insanitary surroundings of native towns, and while it is believed that under existing circumstances their health is as good as can be expected, the gradual withdrawal of the troops into well-built barracks on new ground and away from the unwholesome influences of too close contact with the native population should be followed by improvement in the rates of sickness and mortality. There is, however, much improvement in the sanitary conditions of cities and towns, notably in the case of Manila. Under the insular board of health, the chief officer of which has always been a medical officer of the Army, the city's health now compares favorably with some of the largest municipalities in the United States and Europe not usually considered as particularly unhealthful. From a report received from the commissioner of public health, Maj. E. C. Carter, surgeon, U. S. Army, dated May 12, 1903, it appears that the death rate in Manila for the current year is about one-half of what it was four years ago, amounting to only 22.17 per thousand for all classes.

The food supply of the troops abroad is reported as generally excellent. Fresh meat and vegetables are supplied plentifully, and ice is furnished at nearly all the island stations.

There is a general recommendation noted in nearly all the sanitary reports, from commands of Philippine scouts, made by medical officers, and strongly urged by company commanders that the full army ration be issued to these soldiers. As diet is supposed to have much to do with the prevalence of beri-beri, it would appear that these recommendations deserve careful consideration.

The custom of boiling all drinking water in the Philippine Islands is kept up, and there appears to be a loss of confidence in the Waterhouse-Forbes sterilizer, with much difference of opinion as to its merits. It is hoped that a series of experiments, made on the spot, may demonstrate the exact value of the apparatus of which so much was expected.

Modern systems of drainage and sewerage being practically nonexistant in the Philippines, much attention is given to complete removal of all wastes by manual labor and cartage.

Criticism of the clothing for hygienic reasons is scarcely ever noted in sanitary reports either at home or in the tropics.

In the United States at some stations the barracks and quarters are reported as being overcrowded, with resulting bad ventilation, or else in bad repair. This is a natural result of the increase of the Army at home stations more rapidly than new buildings could be constructed, and will be remedied in time.

The water supply of posts in the United States is generally satisfactory and beyond criticism, but at some of the larger stations water for drinking is boiled as a routine measure. The necessity for such action at home, where good natural water can generally be obtained, is much to be deplored. The permanent military stations of the United States should have water supplies beyond suspicion, ample for all purposes, and preferably independent of neighboring municipalities. To furnish, with much trouble, a limited supply of boiled or distilled water for drinking where impure water, or at least water under suspicion, is used for other purposes, is very unsatisfactory, as most men will drink from the most convenient source, and are apt to prefer the unboiled water. At Fort Leavenworth, Kans., the water supply from the town system of Leavenworth has been repeatedly condemned by medical officers, but the question seems to be now on the eve of satisfactory settlement. At Jefferson Barracks, Mo., an experimental well has been suggested, with a view to securing a water supply independent of St. Louis. At the Presidio of San Francisco, Cal., the local supply is insufficient, and the general hospital and neighboring camps and cantonments use the city water.

Sewerage and disposal of wastes generally are reported satisfactory, although at Jackson Barracks, La., the problem of sewage disposal is as yet unsettled, and at Fort Ringgold, Tex., a large and offensive cesspool has existed, due to the fact that the outfall of the post sewer was left high and dry several years ago when the Rio Grande changed its course.

The food of the Army in the United States is almost always reported as very good. Adverse criticism is exceedingly rare, being even then generally directed toward minor defects in baking, cooking, or serving, rather than the quality of the raw material.

It is believed that the sanitary inspections of military posts required of the senior medical officers on duty are conscientiously carried out, and that all defects that can be remedied by local action receive prompt consideration, while recommendations involving new construction or large expense are brought before higher authority. Inspections of all the posts of the military department by the chief surgeon have been authorized in some cases. The value of such inspection is self-evident; first, as it affords the chief medical officer a necessary acquaintance with the personnel of medical officers and enlisted men of the Hospital Corps, and the methods of instruction, administration, and care of sick employed at each post; and, second, it enables him to know personally the sanitary conditions affecting all troops in the department. I earnestly repeat the recommendation of my predecessors that each chief surgeon of a department be required annually to inspect the medical department and the sanitary condition of every post. Both the knowledge and experience of a trained medical officer are necessary to an inspector reporting upon such matters as the care of the sick, the management of contagious diseases, professional instruction of enlisted men, etc., while the chief surgeon who does not thoroughly know the sanitary conditions of the department can not be expected to intelligently act upon numerous questions referred to him for opinion or decision.

The work of the sanitary inspector attached to the headquarters Division of the Philippines has consisted in supervising the sanitary care of Government storehouses, distilling plants, inter-island transports, and the lorchas, bancas, and barges of the Army Transport Service.

Until recently the quartermaster and commissary storehouses were in various parts of the city of Manila, necessitating a loss of much time in travel from place to place for inspecting purposes. These buildings were large and airy, making good storehouses, but they were poorly provided with water-closets, and the inspector found difficulty in preventing the native employees from committing nuisances about the alleys and grounds in their neighborhood. But the concentration of all warehouses on the south bank of the Pasig River, where efficient sanitary closets have been provided, has obviated the difficulties encountered in this direction.

The two distilling plants at Manila furnish about 10,000 gallons of water daily, which amount appears to be ample for the needs of those to be supplied. These plants have been provided with steam connection with the boiler so that cans and vessels brought for water may be steamed before being filled for issue. The tanks themselves are sterilized in like manner every two weeks, and the water examined for bacteria before and after each sterilization.

A daily inspection of bancas and launches has had beneficial results, and at this time they are in excellent condition. Much improvement has taken place in the sanitary status of the inter-island transports, due to the active cooperation of the depot quartermaster, whose prompt compliance with the recommendations of the inspector has led the masters of these transports to understand that a good sanitary condition on board is essential to the retention of their charter. These transports are inspected on arrival at Manila and again before clearing.

RACIAL PREVALENCE OF DISEASE AND INJURY IN THE ARMY.

The enrollment of about 5,000 native Filipino scouts having added a new racial element to the Army, it becomes a matter of much interest to study the comparative effects of disease on them and on our white and colored troops. For the whole Army, at home and abroad, during the year 1902 the white troops showed an admission rate of 1,706.33 per thousand and a death rate of 14.40. The negro troops had 1,897.74 admissions and 24.11 deaths per thousand, and the Malay scouts 1,707.21 admissions per thousand and 24.04 deaths. The white race, therefore, gave the lowest figures in sickness and much the lowest mortality. The black race led in both, although the Malay closely approached it in death rate.

In injuries the Filipino soldiers were singularly fortunate, having an admission rate of only 76.87 per thousand, much less than one-half the colored rate, 194.25, and scarcely more than a third of the white rate, 211.14. Their entire mortality from injury was from gunshot, 7 men in all. Certain infectious diseases, rare at all times in the Army and not common in the Philippine Islands, did not occur among the scouts, such as scarlet fever, diphtheria, and cerebro-spinal fever. On the other hand, their percentage of measles was about half that of the white troops, and the prevalence of mumps was over twice as great. In admissions for consumption they exceeded slightly the white men, but fell far below the negro troops. In smallpox no great difference in prevalence was observed, although the Filipino troops led. In typhoid fever the Malay rate for admission and death was only one-fourth of the white at home and abroad.

Malarial diseases throughout the entire Army caused a very much greater percentage of sickness and death among Philippine scouts than among either white or colored soldiers of American birth. The white and colored rates did not greatly vary, being 242.82 and 274.98 admissions per thousand, respectively, and a mortality of only 0.38 and 0.23 per thousand, while among the native scouts 707.84 admissions per thousand to sick report were caused by malaria and 1.66 men per thousand died.

Dengue was also more prevalent among the scouts.

Asiatic cholera, which caused 4.72 cases and 2.83 deaths for each thousand white soldiers in the Army, showed 15.68 admissions and 7.96 deaths per thousand in the negro regiments and 16.58 admissions and 10.15 deaths per thousand for Filipino troops. When allowance is made for the large number of white soldiers in the United States and not exposed to cholera, the rates for races do not so greatly differ.

The one infectious disease which was almost entirely confined to the soldiers of Malaysian blood is beri-beri. Scarcely known among white troops, slightly more common in colored, it caused an admission rate among the native scouts of 123.92 per thousand and a death rate of 6.01 per thousand, exactly one-quarter of their entire mortality for the year.

Of venereal diseases the scouts showed only a little more than one-fourth prevalence compared with white troops, and slightly more than one-sixth the colored rate. A considerable number of the scouts are, however, married men.

The freedom of the Filipino from the vice of drunkenness is strikingly shown when we find that out of 5,000 men only 3 individuals were treated for alcoholism in one year, and that while white soldiers were admitted to sick report on account of their own misconduct in the use of alcohol at the rate of 24.78 per thousand, and colored troops at the rate of 11.70, the Malay scouts showed the extremely small admission rate of 0.62 per thousand.

In resisting gastric and intestinal diseases (cholera excepted) the Malay soldier appears, from the records of 1902, to have a great advantage over both the white and colored Americans. To dysentery, acute and chronic, he is apparently subject to one-third the extent of his white comrade, to other diarrheal diseases less than one-half, and he has about the same proportionate immunity to other diseases of this class—dyspepsia, colic, constipation, gastritis, etc.

Without going further into specific diseases it seems, generally speaking, that Filipino troops exceed greatly both white and black in infectious diseases, excepting dysentery and typhoid fever, and that including these last they are much less subject to diseases affecting the digestive organs.

In diseases of the nervous system (excluding beri-beri as an infectious disease) the difference is even greater, the prevalence among Malay soldiers being only about one-fourth of the white rate.

Diseases of the circulatory and respiratory systems, the genito-urinary system, the lymphatic system, diseases of the muscles, bones, and joints, the eye, ear, nose, and throat, also the unclassified diseases, vary in different degrees for the different races, but in all the Filipino scouts show the smallest rate, while in skin diseases they lead the others.

Full statistics of the comparative prevalence and mortality in each disease and injury among soldiers of the three races represented in the Army appear at the end of this report, but however interesting and instructive they may be to the general reader, they are somewhat misleading in certain diseases for the reason that many of the most serious maladies prevail more extensively in the Philippine Islands, and as a large part of the white force and some of the colored were not subjected during 1902 to Philippine conditions, and as all the scouts were so exposed, it seems best to make a few further comparisons between the health of the Malay soldiers with white and colored troops actually serving in the Islands.

During 1902 there was a mean strength in the Philippine Islands of 30,300 white soldiers, 2,642 colored, and 4,826 native scouts.

Ever since the American occupation of the Philippines, the health of the forces there serving has been mainly affected, first by malarial fevers and results, second by dysentery and diarrheal diseases, and third by dengue and other febrile conditions of undetermined character. In 1902 cholera appeared and made a heavy impression on the rates of sickness and death. Comparing carefully the effects of the foregoing diseases on white, black, and Malay, some rather unexpected results are obtained, tabulated briefly as follows:

Special diseases in Philippine Islands, 1902, by races, admission rate and death rate per 1,000 of strength.

Disease.	White troops, 30,300.		Colored troops, 2,642.		Malay troops, 4,826.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Malarial fevers and results	442.18	0.70	374.72	0.38	707.83	1.66
Dengue	173.63	....	190.01	....	147.12	....
Fevers, undetermined	17.95	....	19.30	....	35.02	....
Dysentery, acute and chronic	133.33	4.85	80.25	1.89	24.45	.83
Diarrheal diseases	399.57	.43	275.17	....	98.43	....
Cholera	11.16	6.70	25.36	11.35	16.58	10.15

From this table the Philippine scouts serving in their own country are seen to largely exceed the white and colored American troops in admission rate and mortality from malarial fevers, in fact, to more than double the colored rates. They had nearly as large a percentage of dengue and over twice as much fever of undetermined origin.

Their comparative immunity to dysentery and diarrhea is much more strikingly shown than when compared to the whole Army. The white troops had nearly six times as much dysentery and six times as many deaths from this cause per thousand, while the colored ratios were about three times as large. Four times as much diarrhea prevailed among the whites and thrice as much among the negroes.

The native of the Philippines eats and drinks with comparative impunity articles of food and foul water, the use of which by white men is disastrous, but he has no such immunity to cholera, and we find that in the present epidemic the admission and death rates in 1902 for native troops greatly exceeded those of the white soldiers, although the American negroes were the greatest sufferers of all.

PREVALENCE OF SPECIAL DISEASES.

SCARLET FEVER.

Eighteen cases, with 1 death, were reported during the calendar year. Seventeen of these were in the United States, with only 1 in the Pacific islands.

MEASLES.

A considerable increase in measles over the previous year was reported. There were 1,164 cases for the whole Army, or 14.41 per thousand, and 28 deaths occurred, equivalent to 0.35 per thousand. In the United States, 834 cases and 24 deaths were noted, from widely scattered points, but of these, 381 cases and 18 deaths took place at the Presidio of San Francisco, Cal., during the first half of the calendar year. This serious outbreak was discussed in the last annual report of the Surgeon-General. Measles among troops in the Philippine Islands was not half so prevalent nor so fatal as in the United States, as there were 328 cases there, with 4 deaths. From Cuba and Porto Rico only 2 cases were reported.

MUMPS.

Of this disease there were 1,276 admissions, equivalent to 15.80 per thousand of strength, a slight increase over the previous year. There was no fatality, and the rate for troops in the United States was 17.26 per thousand, compared with 23.23 in 1901. The increase in the Pacific islands was marked, being, for 1902, 15.20 per thousand, while in 1901 it was 12.40. Sixteen cases only were reported from Cuba and Porto Rico.

SMALLPOX.

There was very little change in the admission rates of smallpox and varioloid. In all 105 cases were reported, equivalent to 1.30 per thousand of strength. Thirty-nine cases occurred in the United

States with 2 deaths, and 63 cases with 12 deaths in the Pacific islands. From Cuba 3 cases, none fatal, were reported. The mortality of the Army was 14, or a ratio of 0.17 per thousand, and is a decided decrease, as in 1901 the death rate was 0.40 per thousand.

From December 16, 1902, to January 3, 1903, 10 cases of discrete smallpox were reported among the crew (civilian employees) of the U. S. army transport *Liscum*, docked at Shanghai. The disease in a severe form prevailed among the Chinese coolies of the city, and the crew was daily exposed to contagion. The cases were isolated, the vessel twice fumigated, and all clothing, etc., disinfected. No death occurred among the patients.

INFLUENZA.

In the whole Army 1,048 cases were reported, with no mortality. The admission rate, 12.97, was a great improvement over that of 1901, when 28.20 cases per thousand of strength were admitted to sick report. The prevalence in the Army at home stations was about eight times as great as in the Philippine Islands.

DENGUE.

This disease gave an enormous admission rate in the Philippines, where 6,473 cases, equivalent to 171.39 per thousand of strength, were reported. In the United States 18 cases occurred, and in Cuba and Porto Rico only 1. No death resulted among this large number of cases. At Jolo, in the Philippine Islands, there were several hundred admissions from dengue, and in several reports from that place Contract Surg. H. A. Eberle, U. S. Army, describes the symptomatology and cause of the disease. He has made many examinations of the fresh blood of dengue patients, and believes he has discovered the parasite of the disease. His views have not, however, been corroborated by observers in the Manila laboratories.

DIPHTHERIA.

There were 21 cases of diphtheria in the whole Army, with 1 death; of these, 15 cases were in the United States, 4 in the Pacific islands, and 2 in Cuba and Porto Rico.

YELLOW FEVER.

Yellow fever does not now exist on United States territory, and no case has originated in Cuba for about two years, notwithstanding that Cuba during this time has had a larger nonimmune population than ever before and that occasional cases of yellow fever have been brought to her shores from infected Mexican and South American ports. The sanitary authorities of the island, recognizing infected mosquitoes to be the sole carriers of infection and therefore the only source of danger, have admitted these cases to public hospitals for treatment, under proper precautions, with not a single instance of transmission to another individual. Seldom has the work of a scientific man for humanity been so quickly and positively followed by practical results as have the now historic experiments of Walter Reed and his associates. A little concerted action on the part of the countries whose ports still harbor the disease, and the most terrible malady of the two American continents will undoubtedly disappear forever. Its continued existence outside the jurisdiction of the United States and the Cuban Republic will considerably add to the difficulties and expense of sanitary work connected with the construction of the proposed isthmian canal.

The recently published bulletin of the Public Health and Marine Hospital Service, containing the experiments of the working party of scientists at Vera Cruz, Mexico, which have demonstrated in the bodies of infected mosquitoes of the family Stegomyia the actual germ of yellow fever, should remove the last doubt remaining in the minds of the most incredulous that the disease is on the eve of total extermination and that the danger of its descent on our shores is gone forever.

TYPHOID FEVER.

Typhoid fever in the past calendar year caused 565 admissions and 69 deaths, a rate per thousand of 6.99 cases and 0.85 deaths. This was a slight increase over the previous year. The army in the United States was much more severely affected than the force abroad, for in Cuba and Porto Rico the admission rate was only 4.28 and the death rate 0.61 per thousand, in the Pacific islands 5.56 and 0.87, respectively, while at home the admission rate was 8.58 per thousand and 0.86 the death rate. The proportion of cases in which exact diagnosis is practicable by blood examination is larger year by year, and the above figures are believed to more accurately represent the real infection of the Army by the disease than ever before.

Typhoid fever, so widely spread throughout the United States, seems to have been unusually prevalent in 1902 and 1903. While many of the large cities are making decided headway in the fight against this disease, the smaller towns and rural communities generally, continue to suffer apparently in a greater degree than ever before. Of all infectious diseases this is the most menacing to the country. Conveyed as cholera is in the excreta of patients, and prevented in the same way, there is little doubt that if its onset were as sudden, its symptoms as terrible, and its mortality as great, a combined public movement would long ago have practically stamped it out. The long period of incubation of typhoid fever, its insidious onset, and the large number of ambulant cases which are never recognized are all causes for its wide dissemination, and at the same time render it very difficult to trace the origin of cases and thus demonstrate to the public the sanitary defects which maintain the disease in its midst. It is an open question whether the annual loss to the country from an endemic disease like typhoid fever, with its 9 per cent mortality and long period of disability, is not greater than would be caused by an occasional general epidemic of cholera, with 70 per cent mortality but short duration of sickness. Cholera at least tends to disappear, sometimes for long periods of years, while typhoid fever shows no such tendency.

The army in the United States is so exposed to typhoid fever that no matter how perfect the sanitation of a post an occasional case is unavoidable and in the majority of instances can be traced to a neighboring community. Where several cases occur in rapid succession all possible efforts are made to trace the origin and discover the local cause for its extension. In nearly every such investigation during the past year the post water supply has been proved beyond suspicion, but in all cases possibility of infection by flies, dust, personal contact, and fomites has been demonstrated.

At the last session of Congress an appropriation was made for the publication of the full report of the Army Board on the Origin and Spread of Typhoid Fever in the United States Military Camps during the Spanish War of 1898, of which only an abstract has been printed. Prof. Victor C. Vaughan, the only surviving member of the Board, now has the task of finally editing the manuscript for the press, and it is hoped its appearance will not be long delayed. This is the most valuable and exhaustive contribution to the epidemiology of typhoid fever ever written, and the experience of the last few years strengthens all the conclusions of the Board.

Among the outbreaks of typhoid fever, by far the most serious and far-reaching in its effects was that occurring in camp at Fort H. G. Wright, Fishers Island, New York, in August and September, 1902. The post was a newly established one and had been garrisoned for only a few months by the Second and Twelfth Companies, Coast Artillery. Many of the buildings were incomplete, and much of the reservation was undergoing leveling, grading, filling, and blasting for roads, several hundred laborers, mostly Italians, being engaged in this work. A few temporary shanties used as eating houses by them and some rudely constructed stables for the contractors' horses, as well as several more or less offensive outhouses, existed on the reservation. On July 27 and 29 five companies of Coast Artillery arrived to take part in the combined Army and Navy maneuvers of 1902, the Fiftieth, Eighty-fifth, and Eighty-sixth from Fort Wadsworth, N. Y., and the Fifty-first and One Hundred and Twenty-third from Fort Hamilton. A camp was established on the only available spot, a grass-covered plain immediately on the seashore, distant about a quarter of a mile from the post buildings. No preparation of the camp site had been made for the occupancy of troops. Two wells from which the post water supply was drawn were situated about 150 yards from the nearest tents, but water was not piped to camp during the first week. A large pond of fresh water very near the shore and about 200 yards from camp was used by the men for bathing and washing their clothing. Sinks were dug for the disposal of excreta and kitchen garbage very near the sea, from 60 to 100 yards from the kitchens. The pits were shallow, water being reached in 3 feet, and the wet sand excavated was not a suitable covering for the dejections. Garbage carts, draft animals, and scavenger service were lacking.

On August 1 Maj. W. F. Carter, surgeon, U. S. Army, reported for duty and recommended that the sinks be moved farther from camp, which was done. The second line of sinks was established farther down the shore, but under the same conditions of sandy soil and high ground water. Quicklime was procured and orders issued to cover all excreta with lime and earth. Owing probably to change of food and water, diarrhea was from the first very prevalent among the troops in camp, about 60 per cent of the command being more or less affected and many going on sick report from this cause.

On August 9, Corpl. W. J. D., One Hundred and Twenty-third Company, Coast Artillery, from Fort Hamilton, was taken into the post hospital with suspicious symptoms, he having been previously suffering from the prevalent diarrhea, and the Widal test proved the case to be typhoid fever.

On August 16 Maj. Walter D. McCaw, surgeon, U. S. Army, reported for duty, relieving Major Carter, and recommended that sanitary latrines, as provided for by General Orders, No. 170, Adjutant-General's Office, Washington, D. C., September 26, 1899, be constructed. Work was begun on these latrines; but as the troughs could not be purchased at New London in the required time, they were never completed, and the use of the pits continued.

August 18, a recruit was received by one of the companies of the permanent garrison who was well advanced in typhoid fever on arrival. He came from Chattanooga, Tenn., by way of Fort Slocum, N. Y.; and as he never visited camp, but was taken into the post hospital immediately, his case has no relation to the outbreak in camp.

On August 21, a case of typhoid fever occurred in the Eighty-fifth Company, Coast Artillery. This company had come from Fort Wadsworth, N. Y., where no typhoid fever had existed for several years, and, having been in camp twenty-four days, this may fairly be regarded as the first non-imported case in the command at Fort H. G. Wright. A company epidemic followed, and between this date and September 11 (when the company had returned to Fort Wadsworth) 25 cases occurred in the Eighty-fifth Company, 22 at Fort H. G. Wright and 3 at Fort Wadsworth. No immediate connection could be traced between the cases in this organization and the first in the One Hundred and Twenty-third Company, and this last company developed only 1 more case at Fort H. G. Wright, August 30, and 1 after return to Fort Hamilton, September 20.

The Fifty-first Company escaped with 3 cases, August 21, 1 at Fort H. G. Wright and 2 at Fort Hamilton. The Eighty-sixth Company escaped entirely at Fort H. G. Wright, but had 1 case at Fort Wadsworth, September 30. The Second and Twelfth companies, comprising the permanent garrison and living in barracks, escaped without a case (except the recruit noted above), and no typhoid fever occurred among officers of the camp or post or among members of the Hospital Corps.

The Fiftieth Company had no typhoid fever until August 30, but between this date and September 17, 15 cases developed, 3 at Fort H. G. Wright and 12 at Fort Wadsworth. Meanwhile the troops in camp had been increased on August 24 by the arrival of the Sixty-ninth Company, Coast Artillery, from Fort Monroe and Companies K and L, Third Battalion of Engineers, from Washington Barracks. None of these last organizations had typhoid fever while in camp, but 1 case developed in the Sixty-ninth Company after its return to Fort Monroe and 7 in the two engineer companies at Washington Barracks.

On September 4 Maj. Charles B. Ewing, surgeon, U. S. Army, relieved Major McCaw, and, the maneuvers over, the camp was broken up between the dates of September 7 and September 14.

In summing up the results of this outbreak, a total of 57 cases occurred, as follows: At Fort H. G. Wright, 30, of which 2 were imported; Fort Wadsworth, 16; Fort Hamilton, 3; Fort Monroe, 1; Washington Barracks, 7.

No history of typhoid fever on Fishers Island could be obtained, and its presence among the laborers on the reservation for the past year was positively denied. Cases existed at New London, Conn., and some of the men from camp visited the town on pass, but the large majority did not. Conditions in camp which might be considered predisposing to an outbreak of typhoid fever were high ground water, clouds of dust from the neighboring upturned ground, flies in large numbers, ineffective disposal of excreta, the prevalence of diarrhea, and the neighborhood of the fresh-water pond in which the men bathed and from which drinking water may have been carelessly taken by some individuals. The well water of the post supply at once came under suspicion, but subsequent examination has demonstrated its purity.

Immediately upon the appearance of the disease orders were given to boil all drinking water and forbidding bathing in the pond. All cases of a febrile nature were promptly isolated and sent to the post hospital for treatment. Daily inspections were made of the tents, kitchens, and sinks. The grounds were kept well policed and the sinks were covered several times a day. During the height of the outbreak the troops were actively engaged in the maneuvers, simulating war conditions as closely as possible, and were kept so hard at work in the fortifications and at the guns that it was difficult to give the attention to camp sanitation and personal hygiene that the situation demanded.

The noticeable features of this outbreak were the absolute immunity of the permanent garrison in barracks, the comparative immunity of the Fifty-first, Sixty-ninth, Eighty-sixth, and One Hundred and Twenty-third Companies, and the excessive prevalence of the disease in the Eighty-fifth and Fiftieth Companies. These two companies lay on opposite flanks of the camp and were separated by three almost uninfected organizations. The possible causative factors of water supply and dust were common to all in camp and garrison and should have affected all alike. Allowing rather largely for the element of chance, it is quite possible that flies carried infection from the inefficient sink system to the company kitchens. It is most probable, however, that the disease was largely spread from man to man in the same company by personal contact or by fomites. The old lesson is thus repeated, that nothing less than complete and immediate destruction or disinfection of all human excreta, along with the most careful personal hygiene, can be relied on to prevent the spread of typhoid fever once introduced in permanent camps. To attain the first, the sanitary latrines provided for by General Orders, No. 170, Adjutant-General's Office, Washington, D. C., September 21, 1899, have proved satisfactory, and Circular No. 62, Adjutant-General's Office, Washington, D. C., December 24, 1902, gives in language simple enough to be understood by every enlisted man, rules of personal hygiene, which, if observed, should prevent such another outbreak in any camp of United States troops. The disposal of excreta in pits should be limited to marching commands and camps of the most temporary nature.

At the close of the epidemic at Fort H. G. Wright, Maj. Walter Reed, surgeon, U. S. Army, was sent to investigate the causes of the outbreak, but his death, which occurred soon after his return to Washington, prevented the expected report.

The prevalence of typhoid at Fort Wadsworth, N. Y., Fort Hamilton, N. Y., and Washington Barracks, D. C., was a direct sequence of the outbreak at Fort H. G. Wright, and calls for no special remark. A few cases occurred at these posts which could not be connected with the maneuvers. Cases evidently not of local origin, and in many instances clearly traced to other places, occurred at Fort McPherson, Ga., Madison Barracks, N. Y., Fort Niagara, N. Y., Fort Columbus, N. Y., Fort Rodman, Mass., Fort Warren, Mass., and several points in the West and South.

At Fort Getty, S. C., 17 cases occurred in 1902. Rain water collected in cemented cisterns from new slate roofs is used and again the water supply may be eliminated as a cause. The surgeon attributes the infection to the city of Charleston, where the soldiers go on pass and where typhoid fever is present to a greater or less extent throughout the year.

Forts De Soto and Dade, on the Florida coast, also use cistern water apparently above suspicion, yet the former had 5 cases between October 23, 1902, and January 6, 1903, and the latter a decided epidemic of 16 cases in January, 1903. The infection is attributed to the city of Tampa, but in the case of Fort Dade especially, it seems clear that some local cause permitted the spread of the disease once introduced. At neither post nor at Fort Getty, S. C., was the present modern sewerage system completed at the time of the outbreak, and infection carried from exposed excreta by flies can not therefore be excluded. It would appear that any method of excreta disposal which does not at once remove, destroy, or disinfect is not without danger, even in garrisons where the men are well housed and provided with lavatory facilities, and that it is advisable to use the sanitary latrines provided for in General Orders, No. 170, Adjutant-General's Office, series 1899, at posts without sewers or pending the completion of the same, as well as in permanent camps.

A severe outbreak occurred in Troop E, Thirteenth Cavalry, at Camp Merritt, Mont., and after the troop had returned to Fort Keogh. First Lieut. Paul C. Hutton, assistant surgeon, U. S. Army, arrived at the camp after 5 cases had developed, and reported as follows October 2, 1902:

> F Troop, Thirteenth Cavalry, Capt. G. H. Preston in command, arrived at this station at 1.30 p. m. September 29, 1902. A sanitary inspection was at once made by Captain Preston and the undersigned and the following condition found: The water which was being used by E Troop, Thirteenth Cavalry, for bath, drinking, and cooking purposes was taken from a spring situated on the banks of Lame Deer Creek, immediately in rear of the troop barracks. This creek had been dammed up 15 feet above this spring by a dam 5 feet high, consisting of oat sacks containing sand and earth. This caused a depth of 4½ feet of stagnant water in the creek in the vicinity of the dam, and in this water the men of the command bathed, washed their clothing, and watered their horses. The water at this point was 7 feet above the bottom of the spring and the spring 15 feet downstream from the dam, thus permitting free seepage into the spring from the stagnant and probably infected water of Lame Deer Creek.
>
> The present commanding officer has been informed that this spring was readily dipped dry prior to the erection of this dam, but that after its construction the spring furnished water in abundance. At reveille on the morning of the 30th this dam was broken, revealing a large accumulation of organic matter on the creek bottom and against the dam.
>
> Contract Surg. H. D. Belt, who was at this station about two weeks prior to the arrival of F Troop, Thirteenth Cavalry, stated that he had recommended the use of boiled water exclusively, and the former commanding officer remarked that he had boiled water for a time after this recommendation but the men of the command refused to drink it and he discontinued the practice. No bacteriological examination of this spring and stagnant water has been made, but it is believed that backwaters were infected with the germs of typhoid fever. When this water supply was inspected the drinking utensil at the spring was thrown away and the spring immediately nailed up by direction of the present commanding officer.
>
> Flies also are believed to have been concerned in the propagation of typhoid fever. They existed in countless numbers and were found swarming over the fecal matter in

> a shallow privy situated 80 yards from the troop kitchen. The excrement was not covered by earth, and proximity to the kitchen rendered infection of food possible. This privy was demolished and filled up without delay by direction of Captain Preston. It is believed, also, that flies were attracted to this point by the large quantities of horse manure which had been permitted to accumulate in the vicinity of the barracks and upon the reservation. Horses had been ranging at large within the reservation inclosure and horse manure was scattered throughout. Five hundred wagon loads of this manure were burned by direction of the commanding officer, F Troop, Thirteenth Cavalry, and the entire reservation is now receiving a thorough policing.
>
> Five cases of typhoid fever were found here and 1 case developed the afternoon of arrival. These cases were cared for in the station hospital, an old log building with no conveniences and in horrible repair. Five Sibley tents were at once secured and a typhoid camp established 500 yards from the post, at a point sheltered by pines and protected on three sides by high hills. Here these patients were made comfortable, and danger of infecting the command reduced to a minimum.
>
> It is difficult to determine accurately just how the water supply here became infected with typhoid germs, but it is thought that the disease existed at some point along the creek above here within the past year, and that the still water about the dam, which contained organic matter, permitted the germs to multiply.

The troops were withdrawn from Camp Merritt early in October, 4 more cases occurring at Fort Keogh in the same organization.

November 29, 1902, an outbreak of typhoid fever was reported from Fort Sam Houston, Tex. The first two cases were imported and came under observation October 14 and 20. The first case locally acquired was taken into hospital November 2. The last admittance was December 20, and in all there were 29 cases, with only 1 death. On January 14, 1903, Maj. Charles F. Mason, surgeon, U. S. Army, reported the cessation of the outbreak with the following remarks:

> It will be seen that until October 14, the date of admission of Lieutenant C., there had been but 1 case at the post during the year, that of Private G., who was admitted June 27 and died August 26. This case probably had nothing to do with the later cases. The present group began with Lieutenant C., who contracted the disease while on detached service at Palestine, Tex., and was admitted to hospital October 14, after having been sick and complaining for at least a week. On October 20 Private G., Company K, Fourth Infantry, was admitted to hospital. He also contracted the disease while on detached service at Camp Leon Springs, and had already been sick several days when he returned to the post October 17. These two cases mark the introduction of the infection into the post. Both were in the second week of the disease when they applied to the surgeon, and meantime had been scattering the infection broadcast.
>
> On November 2, fifteen days after G. returned to the post, the next case reported in the person of a private, Troop B, Twelfth Cavalry, who had not been out of the post. On November 15, 2 cases developed, and after that there were new cases almost daily until December 11, since which time there has been only one case, that of Private T., Hospital Corps, one of the nurses on duty with the typhoid patients, who was admitted December 20. As to the cause of the outbreak, after most careful investigation and deliberation I am of the opinion that the infection was brought into the post by the first two cases; that during the incubation period they infected the closets, the flies, and perhaps the soil; that thereafter the infection was spread from person to person largely by means of flies, but also by means of infected persons, shoes, clothing, and bedding.
>
> My reasons for this conclusion are as follows: The water supply is from artesian wells 800 feet deep, and is exactly the same as that of the West Texas Military Academy, a boarding school with about 150 scholars just outside of our gates, and which had no typhoid. It is also the same as that of the city of San Antonio, where there were only sporadic cases. Milk may be excluded by the fact that only about one-half of the men had used milk in any form. The same remark applies to raw oysters and vegetables. Flies have been more numerous this fall than ever before. The kitchen and mess hall of the general mess were entirely unprotected from them. The men frequently fail to flush the water-closets after use, thus leaving fecal matter exposed to flies. The monthly physical inspection of the men has shown that their drawers are frequently more or less smeared with fecal matter. The method of washing dishes and utensils at the mess is crude and opens the door to infection;

the washing is all done by hand, the utensils being often placed on the floor, which is covered with water in which the men wade with their, perhaps infected, shoes, and in which they place the brooms used for cleaning the utensils. Many of those now sick with typhoid had been on duty at the mess as dish washers, waiters, etc., just prior to entering the hospital, and it is very easily seen how they could infect their hands and thence the food and dishes handled by them. The measures used for the suppression of the outbreak have been the prohibition of the use of any uncooked food and its protection from flies, the latter end having been largely effected by the advent of cold weather, the immediate disinfection of all clothing and bedding of typhoid patients as soon as the case was diagnosed, the daily disinfection of all closets and seats for the purpose of protection against infection from ambulant cases, and the prompt removal to hospital of all suspects. In addition every possible source of infection was investigated and corrected by the prompt and cordial co-operation of the post commander.

There was 1 death in the 29 cases, a mortality of 3.44 per cent. While most of the cases were very severe, there were a few that were very mild. Some of these mild cases were followed by a very severe relapse. All the cases of fever lasting more than forty-eight hours without local lesions, without the plasmodium, and in which there was an enlarged spleen and positive Widal reaction were considered typhoid.

All the 29 cases gave a positive reaction at some stage, though often the first or second specimen was negative. Twenty-two of the cases were tested for agglutination with paracolon bacillus with negative results in all.

Diazo reaction positive at some stage	27
Diazo reaction negative throughout	2
Rose spots present	20
Rose spots absent throughout	9
Enlarged spleen present	28
Enlarged spleen absent	1
Hemorrhage from bowels	5

In conclusion, I wish to call attention to the excellent work of the hospital corps nurses; it was faithful, intelligent, and skillful, as evidenced by the results attained. I have never seen better work even by female trained nurses.

From Fort Leavenworth, Kans., the largest military post in the United States, the surgeon, Lieut. Col. John Van R. Hoff, deputy surgeon-general, U. S. Army, reported, April 6, that in his opinion typhoid fever was endemic, and attributed the source to the water supply, which is that of the city of Leavenworth and comes from the Missouri River. The sewage of Fort Leavenworth and the United States prison on the reservation is discharged into the river above the intake of the city waterworks. In December, 1902, the medical officers of the post began a searching investigation into the causes of the disease. The milk supply, the use of green garden produce, and the possibility of contact infection were investigated, and much stress was rightly laid upon the fact that of 9 cases in the United States prison 8 had been confined six months or longer, and only 1, a recent case, had been sick on arrival. These prisoners work at different places on the reservation, and had used only the city water unsterilized. The surgeon's conclusions are as follows:

It will be observed that of the 13 cases in the post, 11 can safely be classed as of local origin, 1 of foreign origin, and 1 doubtful. Of the 9 cases occurring in the United States prison at this place, 8 are of local origin and 1 case had the disease when admitted, making a total of cases of local infection, 19, foreign infection, 2, and doubtful, 1, 22 in all. It will be further observed that the Sixth Infantry, Troops G and H of the Fourth Cavalry, and Twenty-eighth Battery Light Artillery, stationed at this post, did not contribute any case; that the water used for drinking purposes is the same for all troops stationed here, as well as for the inmates of the prison; that the practice as to sterilizing water varies but little in the different organizations; that the habits as to visiting the city of Leavenworth, buying milk for drinking purposes, etc., vary but little in the several organizations; that the use of green vegetables by the various organizations does not materially differ; that careful sanitary

> inspection of the quarters and customs of the different organizations in which typhoid appeared revealed nothing different from those in organizations free from this disease which would indicate a cause for the infection.
>
> Based upon the foregoing, the surgeon is unable to state why these particular organizations should be affected and others, apparently under the same conditions, escape. Nevertheless, considering the well-known fact that this command is drinking a more or less concentrated solution of its own sewage, it is not difficult to believe, though impossible to demonstrate, that the source of infection is in the water supply. The disease thus far has probably attacked the most susceptible, but, in view of the state of the water supply, it is not unlikely that the poison, to which each case adds potency, will soon become more virulent and the epidemic extend.
>
> The number of cases of typhoid fever now under treatment in the town of Leavenworth could not be definitely ascertained, but it is believed that many such exist.
>
> In view of the foregoing, the surgeon is of the opinion that every possible precaution should be taken to prevent further infection of this command, and particularly should all water used for drinking or culinary purposes be sterilized.

In spite of stringent orders to boil all drinking water, it has been found impossible to compel its exclusive use by all members of such a large community, and while the spread of the disease has been undoubtedly checked, cases of typhoid fever may be expected until the purity of the water supply of the town and garrison is rendered beyond suspicion.

At the U. S. Military Academy, West Point, N. Y., five cases of typhoid appeared among the cadets between March 18 and April 13, 1903, the indications being that a portion of the milk supply was infected. The surgeon, Lieut. Col. Valery Havard, deputy surgeon-general, U. S. Army, reported, May 1:

> The source of the contagion is unknown. For over a year there has been no typhoid fever on this reservation, and only two cases in the neighboring town of Highland Falls, which cases had entirely recovered more than a month before the inception of our first case. Furthermore, these two patients, their relatives, and their friends had no connection of any kind with the post.
>
> The water supply is thought to be above suspicion, being entirely under our supervision and control and removed from ordinary causes of contamination.
>
> The milk supply (from 150 to 180 gallons daily) has been open to suspicion. Until April 1 it was obtained from a dealer who collected it from a number of dairies, too numerous and distant for inspection. On April 1 the contractor was changed and the milk obtained from a different locality. A clause of the new contract provides that the necessary quantity must be obtained from no more than three dairies, which must be acceptable to the authorities of the Academy, they having been inspected and found satisfactory. Arrangements are being made by the same contractor to furnish the entire supply from only one dairy, which will submit to all our requirements. Meanwhile, all the cans are thoroughly sterilized with boiling water and steam by the contractor before being returned to the farmers, who are enjoined to pour in their milk without any previous washing or rinsing. As a further precaution, all the milk used by cadets for drinking purposes is pasteurized in the cadet kitchen.
>
> There is no proof that these cases of typhoid are the result of infected milk, but the following circumstances would seem to point that way:
>
> 1. The five patients were fond of milk and drank it freely.
> 2. They had seats at different and widely separated tables in the large mess room thus indicating a common article of food as the source of infection.
> 3. Assuming the incubation period to be two weeks, no more cases were contracted after April 1, date of change of the milk supply.
> 4. The only other articles of uncooked food used in the mess are butter and fruit (apples, oranges, and bananas), articles seldom considered suspicious or likely vehicles of the typhoid bacillus.

There was no further infection among the cadets, and all the patients recovered.

MALARIAL FEVERS.

There were 21,996 entries on sick report for malarial fevers and cachexia, equivalent to an admission rate of 272.30 per thousand of strength, and a death rate of 0.45 per thousand, divided as follows: Intermittent fevers 18,410 cases, admission-rate per thousand 227.91, discharge rate 0.02, deaths none; remittent fevers 3,098 cases, equivalent to 38.35 admissions per thousand, no discharge, and death rate 0.09; pernicious malarial fevers 38 cases, 0.47 admission rate, no discharge, death rate 0.26 per thousand mean strength; malarial cachexia 450 cases, with rates of 5.57 for admission, 0.05 for discharge, and 0.10 for deaths.

For the whole Army the reduction in the prevalence of malaria, compared with the calendar year 1901, when the rate was 380.37, is very marked. That this reduction is general at home and abroad is seen by comparing the 1901 rate in the United States, 113.33, with that of 1902, which is 96.29. In the Pacific islands in 1901 the rate was 516.13; in 1902, 471.41. Blood examinations for the malarial organisms are now made in a far greater number of cases than before, as the decrease in the number of small and remote stations has been so great that microscopes are nearly everywhere available. Also the number of admissions for "fever undetermined," among which many irregular malarial fevers and some mild typhoid cases have probably always escaped recognition, was much less than in 1901. Of these admissions there were only 1,107 for the whole Army, equivalent to a rate of 13.70 per thousand, while in 1901 there were 1,805 admissions, a rate of 19.52 per thousand. As is usually the case, no mortality was reported from the undetermined fevers, and the decreased rate, in connection with the lower figures for malaria, is gratifying. For the decade 1888 to 1897, when the whole Army was in garrison in the United States, the admission rate from these unclassified fevers was 12.03 per thousand, which is very nearly approached by the rate for the past calendar year.

In the summer of 1902 the work of exterminating mosquitoes was actively prosecuted at stations in the United States where malarial fever has always been prevalent. The result has been a diminution of the disease and a decided increase in the comfort of the garrisons by lessening the numbers of the insects whether malaria bearing or not. In some cases, owing to enormous areas suitable as breeding places for mosquitoes in the immediate neighborhood of posts and not under military government, no special results were obtained. The work is being continued this season, and as the health authorities of states and municipalities take up the subject a decided decrease of malarial fever is expected among the troops. So far the preventive work has mainly consisted of the use of petroleum on all collections of standing water impossible to drain, with such ditching, clearing of underbrush, etc., as was practicable with the labor available. At most of the mosquito-infested stations drainage work on a large scale at considerable expense will be necessary before the breeding places of mosquitoes are permanently destroyed, and at many places total extermination seems an impossibility. So far it may be said that the work done and the small expenditure for crude petroleum have been amply repaid by diminished sick rates and increased comfort. From Forts Totten and Wadsworth, N. Y., a very appreciable decrease in the number of mosquitoes was reported.

Capt. F. A. Winter, assistant surgeon, U. S. Army, reporting from Jefferson Barracks, Mo., October 14, 1902, says:

> This post has had a very unsavory reputation in the past as a malarial locality, and the prosecution of a mosquito crusade during the past summer seems, from the sub-

joined data, to have been attended with results of material value in the improvement of sanitary conditions.

A factor of the greatest importance, I think, in an inquiry of this kind comes from the consideration of the comparative rainfall during the summer months in such a climate as this. I have secured data upon this matter through the courtesy of Mr. R. J. Hyatt, of the U. S. Weather Bureau in St. Louis, and shall make reference to it as far back as the year 1896.

The most instructive comparison is to be found between the year 1897 and the present year. The former year antedated, of course, the Spanish-American war and its attendant advent of tropical malaria.

The aggregate rainfall for the months of June, July, August, and September in 1897 was 9.30 inches, very decidedly below that of the average in this vicinity, as will appear from the following table of rainfall:

Rainfall, in inches, during June, July, August, and September.

1896	13.78	1900	10.45
1897	9.30	1901	6.79
1898	15.39	1902	17.38
1899	10.90		

As will be seen, the year 1902 shows a total precipitation for the four months of 17.38 inches, or the heaviest in seven years. In spite of this difference between the years 1897 and 1902, the latter year showed a most signal improvement over the former in the matter of malarial incidence.

Per cent of sick with malarial disease to average strength of command.

Month.	Year.	Per cent.
July	1897	9.20
July	1902	1.24
August	1897	8.00
August	1902	7.20
September	1897	14.39
September	1902	1.73

Or, taking the aggregate for the three months, 1897 showed a percentage to average strength of command of 31.59, while 1902 showed only 10.17, a difference of 21.42 per cent in favor of 1902.

Conceding that precipitation favors the multiplication of mosquitoes, the year 1902 must have been signally favorable for their growth, while 1897 was very much less so; but in 1897 no effort was made to limit the growth of mosquitoes, while in 1902 attention was directed to this matter along the lines laid down by Reed and Gorgas in Cuba and Ross in the Orient.

Another fact must enter for consideration in the comparison of the two years. The troops stationed here in 1897 had never been in the tropics, while those here during the present year had but lately come from the Philippines and Cuba. The latency of tropical malaria at times is well known to those who have handled it, and the fact that April and May, 1902, two non-mosquito months at this post, showed a higher rate of admissions than either July or September speaks strongly for the disease having been an importation with the men coming from the tropics. Thus far in the present month there have been but 3 admissions for malaria, whereas in the same month in 1897 there were 22, or 12.49 per cent of the command. These figures, I think, make a very satisfactory showing.

The year 1898, showed a very large non-effectiveness, probably caused by the fact that the subjects were in the main men who had just returned from the Santiago campaign in Cuba.

A very small amount of malarial disease in the year 1901, 13.02 per cent, is explicable by the fact that it was an unusually dry year (total precipitation for June, July, August, and September, only 6.79 inches) and by the further fact that the garrison at that time was made up of a recruit squadron of cavalry, carrying with it very little or no malaria at the time of its arrival here.

It is to be hoped that it may be possible to apply more elaborate and systematic measures for the suppression of the mosquito agency during the coming summer, and that the good showing of the past summer may be improved.

First Lieut. Charles F. Craig, assistant surgeon, U. S. Army, whose work in demonstrating latent and masked malaria in the cases of many invalid soldiers sent to the general hospital, Presidio of San Francisco, Cal., from the Philippine Islands, was noticed last year, has reported more fully on this interesting subject, and states that since special attention has been paid to this matter he has observed 367 cases of masked or latent malarial infection, about one-fourth of all cases in which the malarial parasite was found. Of the 367 cases he found some variety of estivo-autumnal parasite 269 times, the tertian parasite 95 times, and the quartan 3 times. In 282 cases the parasites were few and in 82 they were numerous.

Dr. Craig's able discussion of the subject is too long to print here in full, but the following extracts are given from his report made to the commanding officer of the hospital for the past fiscal year as being of general interest:

> In those cases in which the parasites were few in number it is comparatively easy to explain the latent condition of the infection; few parasites being present but little malarial poison was elaborated, not sufficient to produce symptoms of the disease. In those cases, however, in which the parasites were numerous, it is much more difficult to explain the latency of the infection. So far as I know there are no experimental data bearing upon this question, although numerous theories have been advanced to account for it. I believe that there probably exists a partial immunity to the effect of the malarial toxin, although the immunity is not sufficient to prevent the growth of the organisms. In all these cases, if untreated with quinin, symptoms of malaria do eventually appear, which I take to be reliable clinical proof of this theory.
>
> From a study of the cases clinically it is often difficult to determine whether or not the malarial infection present is latent or masked. In many of the cases the absence of any symptoms which could be attributed to malaria made the diagnosis of latent infections easy, and, in the same way, numerous cases showed such a preponderance of symptoms due to other disease processes as to render the diagnosis of masked infections reasonable. In some of the cases, however, it was almost impossible to determine whether or not the infection was latent or masked.
>
> Classified as well as possible in this manner, the 367 cases were divided as follows: Latent infections, 255; masked infections, 112.
>
> The following table shows the clinical diagnosis made in these cases before the examination of the blood:

Disease.	Cases.	Latent.	Masked.	Disease.	Cases.	Latent.	Masked.
Chronic dysentery	70	15	55	Convalescent from operation	1	1	0
Chronic diarrhea	25	20	5	Arthritis deformans	1	1	0
Pulmonary tuberculosis	21	2	19	Furunculosis	1	0	1
Fractures and wounds	10	10	0	Retinitis	1	1	0
Chronic gastritis	8	8	0	Varicocele	1	1	0
Amebic dysentery	9	5	4	Tachycardia	1	1	0
Chronic indigestion	5	3	2	Uncinariasis	1	1	0
Acute bronchitis	3	0	3	Malta fever	1	0	1
Hernia	3	3	0	Diabetes mellitus	1	1	0
Otitis media	3	3	0	Paraplegia	1	1	0
Acute melancholia	3	3	0	Acute endocarditis	1	1	0
Rheumatism	3	0	3	Gonorrhea	1	0	1
Measles	3	0	3	Cellulitis	1	0	1
Anemia	3	0	3	Chancroid	1	0	1
Secondary syphilis	2	2	0	Acute constipation	1	0	1
Insanity	2	2	0	Hemorrhoids	1	1	0
Paralysis	2	2	0	Adenitis, cervical	1	1	0
Arthritis	2	0	2	Appendicitis	1	0	1
Acute dementia	2	2	0	Hemiplegia	1	0	1
Typhoid fever	2	0	2	Diagnosis undetermined	164	164	0
Pneumonia	2	0	2				
Abscess of liver	1	0	1				

> A moment's observation of this table will show that the great majority of latent and masked infections occurred in patients suffering from diseases of the alimentary tract and pulmonary tuberculosis. I shall not discuss separately each class of cases,

but wish to draw especial attention to the occurrence of latent and masked infections in chronic dysentery. In very many of the cases so diagnosed treatment with quinin showed a marked improvement in the dysenteric symptoms, and in some of them complete recovery resulted. There can be no doubt that there exists a strictly malarial dysentery due to the localization of the parasites in the glands of the intestinal mucosa.

During the last three years of my service at this hospital 7 cases have been observed in which the autopsy showed a latent malarial infection unaccompanied by clinical symptoms of the presence of the parasites in the blood before death. Three of these cases have been benign tertian infections and 4 estivo-autumnal infections of the tertian type.

The pathological lesions found were confined entirely to the spleen and liver. This local pathological change is peculiar, as it was also shown to be present in the estivo-autumnal latent infections. In numerous cases coming to autopsy from other disease processes accompanied by a latent malarial infection in which the parasites were found in the blood, but in which no definite symptoms were produced, it was noticed that the chief pathological lesions were also found in the liver and spleen, but that other organs showed them to some extent. It is well known that in an acute malarial infection nearly every organ of the body is more or less involved. Thus it will be seen that from the mildest latent infection to the acute infections there is a gradual progress in pathological lesions, first manifested in the spleen and liver and spreading, according to the extent and severity of the infection, to other organs.

The most marked pathological lesions were always present in the spleen. The organ in the tertian infections was considerably enlarged and dark bluish gray in color externally, the capsule being smooth and tense, the notches distinct, and the organ somewhat decreased in consistence. Upon section the color was a dark brownish red, but did not present that intense brownish or black color found in well-marked acute infections. This, of course, is easily understood from the fact that the parasites present were comparatively few in number and that little pigment was therefore formed. Microscopically the sections of the spleen showed intense congestion of the splenic sinuses, together with pigmentation, especially marked along the edges of the Malpighian bodies and along the fibrous trabeculæ. The connective tissue of the organ was not increased in amount. The cells of the splenic pulp were evidently greatly increased in number and many of the cells showed marked division of the nucleus. Many were also pigmented and distorted in shape.

The above are the chief pathological conditions found, aside from the parasitology. The splenic sinuses and capillaries contained numerous parasite-infected red cells and pigmented leukocytes. While these infected red cells were not nearly as numerous as in acute infections, or in the more advanced latent infections, still they were sufficiently numerous to be very noticeable. The parasites were in about the same stage of development in each case, but it so happened that the patients had died at such a period that the entire cycle of the tertian parasite within the human body could be worked out from the examination of sections of spleens from these cases. As far as could be ascertained, the parasites presented no essential differences in their morphology from those found in the red cells in the peripheral blood during an acute infection. The segmenting bodies were numerous in one case, the segments appearing, however, slightly more refractive and more clearly outlined than when found in the peripheral blood. In fact it may be stated as a general rule that the parasites in these infected corpuscles in the spleen were more distinct and more easily recognized than the same parasites in the peripheral blood would be. Their staining reactions were exactly the same, and it could not be ascertained that they stained more easily or more deeply than when present in the peripheral blood.

The chief point of importance in the pathology of these cases is that the entire human cycle of the parasite can be completed within the spleen when no parasites are demonstrable elsewhere in the body, thus proving conclusively that the seat of the initial malarial infection is in the spleen. While this has been the opinion of nearly all authorities for years, few observations are on record where, as in these cases, no malarial symptoms or parasites could be determined while the patient was alive, but the entire human life cycle of the parasite was apparent in the spleen after death.

Besides the infected red cells, numerous leukocytes were observed containing pigment in the form of large and small granules, and a few containing malarial parasites, some of the parasites being evidently but just engulfed and typical in appearance. There were also present very large white cells containing much pigment in large blocks, and often one or more half to nearly full grown parasites. A small amount of free pigment was observed lying within the splenic sinuses and collected around the Malpighian corpuscles and the trabeculæ.

Macroscopically the liver did not differ in appearance from that of a normal organ, in so far as the pathology of malaria was concerned. One case, a latent tertian infection, was suffering from cirrhosis of the liver, which presented the ordinary appearance of that disease. The liver did not appear pigmented in any of the cases, and upon section the only thing observable was marked venous congestion. The sections of the liver showed a few pigmented leukocytes within the capillaries, some of the leukocytes containing what appeared to be degenerated malarial parasites. There was but little pigment present in the sections, most of it being within the leukocytes mentioned. No large phagocytes were observed, nor were any infected red corpuscles demonstrable.

The pathology of latent tertian infections, as shown by the above findings, is confined almost entirely to the spleen, the liver being but slightly involved. The changes in the spleen consist chiefly in an engorgement of the splenic sinuses with red cells and leukocytes, the presence of infected red cells and of phagocytic and melaniferous leukocytes, an increase in the cells of the splenic pulp with more or less degeneration and karyokinesis, and pigmentation of the organ. In the liver the chief changes consist in slight pigmentation, more or less venous congestion, and the presence of melaniferous leukocytes.

The pathology of cases of latent estivo-autumnal infections differed but slightly from that of the tertian and chiefly in the character of the parasites present.

Macroscopically the spleen appeared much as in the tertian infections, save that in all cases it was not as large or as much pigmented. Upon section the consistence was found decreased, the Malpighian corpuscles were nearly invisible, the color a dark mahogany red, the substance of the spleen being almost diffluent in two of the cases. Upon microscopical examination the same changes were found as in the tertian latent infections. The infected red cells were not as numerous nor were the melaniferous leucocytes. The parasites observed within the red cells were almost uniformly in one stage of growth, but the four cases observed showed nearly all stages of the life cycle of the parasite, no single one of them, however, showing the entire life cycle. The young forms of the estivo-autumnal parasite were similar in appearance to the young forms found in the peripheral blood, being small hyaline rings, well defined, and presenting in a fresh smear marked ameboid motion of limited extent. The older parasites were round or ring-like in shape, and contained a small amount of pigment in the form of very fine reddish brown granules, this pigment being but very slightly motile. In one case numerous segmenting bodies were observed, the segmentation always taking place within the red cell. The segments varied in number, the largest number being 24, the smallest 12. The peculiarity about the segments observed in this case was that each appeared to present the ring form which is usually found in the red cell at the earliest stage of infection. This appearance was so distinct that the red blood cell containing the segments seemed to be filled with small ring-shaped estivo-autumnal parasites. The pigment in the segmenting bodies was collected either at the center or at one side, but none of the segments contained any pigment.

Another peculiarity noted in the sections of the spleen was that no crescents were present. As is well known, in cases of acute and chronic estivo-autumnal infections, the spleen generally presents in sections numerous crescents. The only explanation of the absence of crescents in these latent infections would seem to be that the parasites had not advanced as yet to the stage in which crescent formation was possible. Numerous pigmented leukocytes were observed containing pigment in the form of minute grains and larger granules and clumps, together with a few nearly full-grown parasites. Very large white cells were observed containing much pigment, and sometimes two or even more well-formed parasites. Considerable free pigment was present in the same localities as noted in the tertian infections.

From the above description it will be seen that the estivo-autumnal parasite is capable of undergoing its entire human life cycle within the spleen, and in such numbers as not to be found in the peripheral blood upon repeated examinations.

The pathological changes present in the liver were similar to those found in the same organ in the tertian infections. No infected red cell was found, although a considerable number of melaniferous leukocytes were observed, together with some free pigment. The liver did not present macroscopically any change which would be indicative of malarial infection.

The question at once arises, in studying the sections of the organs in these latent infections, as to the reason for the non-appearance of the infected red cells in the peripheral blood. There was no difficulty experienced in finding such cells in the sections of the spleen, and it would appear at first sight that it would be impossible for the number of infected red cells which were found in the spleen to be present there only, as apparently there is no reason why the red blood corpuscles containing the parasites should not circulate freely in the blood which passes through the spleen to other portions of the body. In considering this question it must be remembered that the number of infected red cells in the spleen was very markedly less than in more advanced latent cases, and immensely less than in the acute malarial infections. It is obvious, therefore, that there is no reason why the infected red cells could not be present in the blood, but on account of their small number be impossible to detect even after a number of examinations. It is a well-known fact that even in acute malarial infections presenting marked symptoms of the disease repeated examinations are often necessary, especially in the estivo-autumnal forms, to demonstrate even a single parasite, and I have often spent half an hour upon an examination of a case in which the symptoms were perfectly typical without finding a parasite, and only demonstrated them after a number of careful examinations. Thus it will be seen that the infected red blood corpuscles are, in all probability, not in any way confined to the spleen, but are actually in circulation in the blood as in acute infections. This also is true of the melaniferous leukocytes, which occurred in very much less number in these cases than they usually do in acute infections. Sections were made of all the other visceræ in these latent infections, but in none of them could any trace of malaria be discovered, except for very slight evidences of deposition of pigment.

The reason for the intensity of the malarial infection in the spleen is not hard to understand, but it is more difficult to understand why the liver rather than any of the other organs in the abdominal cavity should have shown traces of the infection.

The chief point of value in the pathology of these cases is the fact that the malarial parasites, either tertian or estivo-autumnal, undergo their entire normal human life cycle within the spleen, and that the time-honored theory that the spleen is the seat of malarial infection is borne out by these examinations.

I have discussed in former reports the proportion of cases of latent malaria to other malarial infections and the diseases which are apt to mask the malarial symptoms. These observations have shown that a malarial infection may exist in the human being, the parasites undergoing their normal evolution, without producing any symptoms. Neither will a blood examination always prove positive in these cases.

Most of the cases described here were present in the hospital for several weeks, had repeated blood examinations, were carefully studied clinically, and in none of them was malarial infection suspected. How long this latency could exist is, of course, a question, but that it can exist for a considerable period of time is conclusively proven by many instances occurring here of prolonged latent infection.

It is obvious that puncture of the spleen in the cases described would have resulted without doubt in the discovery of the malarial infection. This procedure, however, is dangerous even in experienced hands, and is certainly not advisable as a routine measure, or in cases such as these, where no malarial symptoms were present.

In conclusion I will draw attention again to the fact that these observations conclusively prove that the malarial parasites may undergo their normal human life cycle in the body without producing symptoms, and that they are practically localized in the spleen.

In the Philippine Islands the work of preventing malaria among troops is steadily pursued, but in a country of jungles, submerged rice fields, and shallow wells, mosquito extermination is apparently hopeless, and the use of the mosquito screen is the principal defense, although other measures are not neglected.

CIRCULAR }
No. 14. }

HEADQUARTERS DIVISION OF THE PHILIPPINES,
Manila, P. I., March 26, 1903.

The following instructions, prepared by the chief surgeon of the division, are published for the information and guidance of troops in the Philippines:

In view of the reported increased prevalence of malarial fevers at certain posts in the division, special attention should be given by post surgeons in their sanitary reports (A. R. 1571) to those methods of restricting the spread of these fevers, which experience has proved to be of value.

The use of the mosquito bar should be made compulsory, and care should be exercised to insure the best results from its use. When dropped into position at night, any mosquitoes that are netted in its interior should be killed, and the skirts of the netting should be tucked under the bedding so as to leave no entrance to the insects.

Patients in hospital should be carefully protected by the nurses or hospital corps men on duty in the wards. Special care should be given to the protection of malarial cases, that the mosquitoes of the locality may not become infected and enabled to propagate the disease from the sick to the well.

Mosquito bars should be used by the native scouts as carefully as by the American troops.

At posts where the prevalence of the disease appears to be due to local conditions, as distinguished from general topographical features, much good may be effected by a careful search for the breeding places of the mosquitoes and the destruction of their larvae. Shallow puddles and all collections of stagnant water should be swept out once a week or oftener, or drained and filled up to the surface level. The ground in the neighborhood should be cleared of all tin cans, abandoned crockery, or other articles which would serve as receptacles for rain water. Even hoof prints on a retentive surface should be attended to.

The drainage of swampy or marshy ground which is near enough to the camp site to affect it unfavorably, and the burning of its vegetation, will have good results, and if this can not be effected benefit may be derived by diffusing a film of kerosene oil over the surface of the stagnant pools once every ten days.

The contents of cesspools, unused wells, water barrels, etc., should also be treated with a film of kerosene oil.

In fact, every available means should be adopted to free the camp site and its immediate surroundings from the pest of mosquitoes by destroying the insects, their larvae, and breeding places, meanwhile protecting malarial cases from being bitten, that the local insects may not become infected, and protecting healthy men, that they may not have the germs of disease implanted in them by mosquitoes that have already become pervaded with the malarial organism.

By command of Major-General Davis:

H. O. S. HEISTAND,
Colonel, Assistant Adjutant-General, Adjutant-General.

Contrary to a rather widely spread notion in this country, the native Filipino is not immune to malarial infection. He is apparently undisturbed by the attack of mosquitoes and does not exhibit paroxysms of malarial fever as intensely as the American, although even more frequently. In his case a toleration of the disease seems to be attained; not an immunity in any sense. Malarial fever is common among natives at certain times and places and is a large contributing factor to the native mortality of the islands. Examinations of the blood of native scouts have been made where practicable and the malarial organism found very frequently. First Lieut. James M. Phalen, assistant surgeon, U. S. Army, examined the blood of 70 members of the Seventh Company, Native Scouts, during the month of December, 1902, and demonstrated the organism in 18.5 per cent. The records of this company showed a high rate of sickness from malarial fever, but all these examinations were made upon men while doing full duty and at a time when none of them showed subjective symptoms. Based on this examination, the following circular was issued:

CIRCULAR }
No. 7. }
HEADQUARTERS THIRD BRIGADE, DEPARTMENT OF LUZON,
Batangas, P. I., March 2, 1903.

The following circular prepared by the chief surgeon for the information of medical officers is published for the guidance of all officers who will comply with the recommendations therein stated as to the compulsory use of mosquito bars:

"CIRCULAR. HEADQUARTERS THIRD BRIGADE, DEPARTMENT OF LUZON,
"CHIEF SURGEON'S OFFICE,
"*Batangas, Batangas, March 2, 1903.*

"The following information is published for the guidance of medical officers serving with scouts at stations having no microscope:

"Systematic observations in one company of scouts have shown that 19 per cent of them had malarial organisms in their blood, and yet had never had any symptoms of disease whatever, the organisms apparently being harmless through racial immunity until there is a loss of resistance from some other disease or from exhaustion, when they may cause death suddenly. This corresponds with reports from Africa, that nearly all the natives harbor the germ, and, though unharmed thereby, they are a source of fatal infection to white men, who do not possess this racial immunity. So far as heard from, every case of white men harboring the germs in the superficial circulation has shown symptoms sooner or later. You are therefore to consider all apparently healthy native soldiers as possible sources of fatal infection to whites, and are to recommend the use of mosquito bars to keep insects from carrying the disease. Native servants should not be allowed to sleep in barracks or quarters without the use of mosquito bars, for they are liable to infect the mosquitoes of that house. In one scout company reports show that no bars were used and the few men who had the disease infected most of the others, so that the company could not be called on for any field service without half of them being prostrated by malaria after a little work in a mosquito-free country.

"Though there are no definite data, it is suspected that a native infected with malaria, if in good health otherwise, will recover in time without medicine, on the general principle that reproduction in the mosquito is necessary for the germs, and that after a certain number of generations in the blood they so lose vitality as to be destroyed by natural defenses, and disappear unless constantly renewed by fresh infections. If this is true, all that is necessary for the protection of a scout command is the use of mosquito bars. The systematic use of quinin with them may be unnecessary except in those having symptoms. White men harboring the organisms must have prolonged systematic medical treatment, no matter how mild their symptoms. Neglect of this merely permits chronicity. Your attention is called to the benefits from the prolonged use of arsenic to saturation (Fowler's solution in increasing doses) in all chronic cases which resist quinin. Some chronic invalids reported have not had this tried, whereas their services might now be available.

"Any exact data on the topics which will clear up disputed points and lead to greater efficiency of troops must be reported.

"CHARLES E. WOODRUFF,
"*Major, Surgeon, U. S. Army, Chief Surgeon.*"

By order of Colonel Williams:
J. G. GALBRAITH,
Captain, First Cavalry, Acting Adjutant-General.

An interesting demonstration of how quickly a command may be seriously infected by malarial fever when on field duty was reported from Balayan, Batangas, by First Lieut. Paul S. Halloran, assistant surgeon, U. S. Army, December 24, 1902.

On December 1, 1902, 30 members of Troop C, First Cavalry, and 2 officers left this station on a hunting trip for five days to the Looc Peninsula, in the northen part of the province. The party arrived at the town of Looc on December 3, camped there that night and the following night. The town consists of about a dozen bamboo huts occupied by a detachment of the constabulary and about a dozen families. It is located in a valley surrounded by mountains, the whole country being thickly covered by vegetation and very thinly settled.

The members of the hunting party slept on the ground under shelter tents during their stay and were in no way protected from mosquitoes, which were present, but not to an annoying degree. The party returned to Balayan December 6, having spent the night of the 5th in Nasagbu.

On December 16, 6 men of this detachment reported at sick call with malarial fever, and in the next four days 11 more members of this hunting party were taken sick with malaria. I immediately began an investigation to determine the source of infection, and as all the cases from C Troop were among men who had been at Looc, I inquired of the native physician here regarding the health of that locality and was informed that at this season of the year it is very unhealthy, as malarial fever is very prevalent. The constabulary officer in charge of the detachment at Looc informs me that over one-half of his men are unfit for duty on account of malarial infection.

Beyond a doubt, the source of infection of the 17 cases of malaria appearing in C Troop within five days is to be traced to Looc, the length of time from date of probable infection to appearance of disease being from twelve to fourteen days.

A very rigid sanitary inspection of the barracks and grounds was made on the 17th, and, aside from slight overgrowth of weeds in rear of the barracks, everything was found in good order. To prevent the possible further infection by mosquitoes, the quarters were fumigated by burning sulphur in every room of the building, and upon the recommendation of the surgeon every man in the troop was given a daily morning dose of 400 mgms. of quinin sulphate. Every man is required to sleep under a mosquito bar, and it is the duty of the non-commissioned officer in charge of quarters to see that this order is carried out.

CONSUMPTION.

During the calendar year 354 cases were admitted, or a rate of 4.38 per thousand of strength. There were 196 discharges and 69 deaths, equivalent to a rate of 2.43 and 0.85, respectively. Troops in the Philippine Islands show the greatest prevalence, as the admission rate was there 5.08, compared with 3.85 in the United States and 2.75 in Cuba and Porto Rico.

No case of pulmonary tuberculosis is now treated at post hospitals in the United States if able to bear transportation to the general hospital at Fort Bayard, N. Mex., and as the commanding officer of a post is now authorized to order a patient to the hospital on the certificate of the surgeon of the post, consumptives are removed without delay from among well men and given every prospect for a cure by climate, generous diet, and open-air life.

LEPROSY.

Up to and including the year 1902 no case of this disease had ever been reported in the Army, but in January, 1903, the surgeon of a station on the Atlantic coast of the United States reported a case of tubercular leprosy, the patient being a soldier of nearly ten years service, who had not been to the Philippine Islands, and had served only eight weeks in Cuba in 1898.

First Lieut. Harry L. Gilchrist, assistant surgeon, U. S. Army, who was quite familiar with leprosy from his service on the health board of Manila during the military government, was immediately sent to investigate the case, and confirmed, beyond a doubt, the diagnosis already made. The patient was at once isolated and every precaution taken to prevent any possible communication of the disease. Later, Doctor Gilchrist was detailed as surgeon of the post, and arrived there May 2. He had been provided with a complete X-ray apparatus, both coil and static, and it was determined to make a full test of the value of X-ray treatment in leprosy.

The following notes on the case are taken from several interesting reports of Doctor Gilchrist, who took up the work with the greatest enthusiasm:

> In April, 1899, the noticeable beginning of the present trouble became apparent in the form of a small nodule, or, as he expressed it, a wart appearing on the forehead just above the right eye, about one-quarter inch in diameter, slightly elevated, freely movable, and painless, following an attack of "chills and fever." No record could be obtained of blood examination having been made, and, although large doses of quinin were administered during these attacks, they were always discontinued, due to utter ineffectiveness.
>
> The patient claims he has never seen a case of leprosy and denies having had sexual intercourse while in Cuba.
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> * * * * * * *
>
> Upon examination the man appears to be in fair physical condition, well nourished, strong, and, with the exception of the nasal trouble, suffers no discomfort, and claims he is able to perform his duties with perfect ease. Heart and lungs, normal; liver, slightly enlarged; spleen, no noticeable enlargement; urine shows traces of sugar, no albumen and no casts.
>
> Nodular eruptions or lepromata, varying in size from a small shot to a chestnut, but of irregular outline and shape, are present in large numbers upon the forehead and neck, with a scattering on the back, elbow, metacarpo-phalangeal joint right hand, thighs, buttocks, and dorsal surface of right foot. The nodules are the natural skin color, or a pale red, and in some instances, where they have partly disappeared, of a

dark-brown color; are firm to the touch, freely movable, devoid of hair, and painless. In the superciliary region they coalesce, forming patches of irregular outline and shape and producing great disfigurement. Upon the chin, cheeks, and neck smaller, isolated lepromata are found. The lips are somewhat thickened, the fleshy part of the nose broadened out, with a small ulcer of long standing on the lower left ala; the external part of both ears are greatly thickened and of a pale red color, showing signs of infiltration. Upon the back and buttocks are a few scattering, irregular, depressed scars, with either a dark ring surrounding or patches of scar tissue of various shapes and sizes. The cervical, axillary, epitrochlear, and inguinal glands are greatly enlarged and indurated.

* * * * * * *

Microscopical examination.—Blood, urine, and saliva, negative. Small nodules or lepromata were sliced off by a sharp scalpel from the forehead, chin, neck, knuckle, thigh, and foot. These were washed separately in distilled water, and from the raw cut surfaces smears were made on cover slips and by staining (as per method described below) large numbers of the bacilli were found scattered throughout the field. A small scab was secured from the nose, a dried nodule from the buttock, and a scraping from the nasal cavity, were macerated separately, and when stained revealed the presence of the bacilli in large numbers.

Method of staining.—Removing the nodule from the distilled water, the pale glistening surface of the cut section was rubbed on the surface of a clean cover slip, the slip was then passed through the flame once for fixation. The smeared surface was then exposed to a seven-minute exposure of cold watery solution of carbol-fuchsin, when it was then treated with a 10 per cent acid alcohol (HNO_3) until the stain disappeared, and as a counter-stain an aqueous solution of methylene blue was used without heat after fixing.

Histological examination of specimen.—A nodule removed from the chin presented the following to the naked eye: The tissue has a grayish or yellowish, semitransparent, homogenous appearance, which hardened, mounted in celloideon, cut, stained, decolorized, and examined under the microscope was found to consist of fibrous tissue with large numbers of lepra bacilli scattered throughout the field, some single and again in masses. The most prominent objects to be seen were numerous large granular vacuolated cell-like masses, the vacuoles containing large masses of the lepra bacilli, also small round cells, and epithelioid cells, most of which showed the presence of the organism, in some but a few in number, in others the cell seems to be a packed mass of them. A few scattering giant cells were observed containing the bacilli.

Several nodules, smearings from which revealed the presence of the bacilli, were turned over to Dr. Carroll at the Army Medical Museum, who hardened and mounted them in paraffin and submitted the accompanying report.

* * * * * * *

Report of First Lieut. James Carroll, assistant surgeon, curator, Army Medical Museum.

The portions received were from several cutaneous nodules and a crust from the margin of the left nostril. The tissues were removed by incisions made parallel with the surface, and with the exception of the crust were about 8 mm. broad by 2 or 3 mm. thick. The microscopical sections were made at right angles to the surface. On account of the presence of calcareous material or of hardened epithelium one of the pieces could not be cut.

The most typical picture was obtained in a piece removed from the surface of a nodule situated on the back of the neck. Stained with hematoxylin and eosin this was seen to contain several typical giant cells and consisted almost wholly of a mass of proliferated connective tissue in the form of epithelioid cells, fibroblasts, and cells with large embryonic nuclei, whose general characters could not be easily determined. Some newly-formed capillaries could be made out and there was a moderate amount of intercellular substance. The covering layer of epithelium is unbroken and appears to be slightly compressed. If the origin of the specimen were not known it could be readily mistaken for a fibro-sarcoma, which it closely resembles throughout. There is no tendency to the formation of nodular areas such as are seen in tuberculosis, but there appears to be a general proliferation of the cells, many of which are embryonic in type. There are also newly formed capillary blood vessels.

When stained with gentian violet and Bismarck brown, one field shows three large typical giant cells crowded with slender bacilli.

Throughout the section bacilli occur in large numbers in the protoplasm of the larger cells, both of the round and fusiform types, the latter occasionally, but not often, forming the walls of the blood vessels. The bacilli are found in close relation to the lymph spaces and lymphatics, and the proliferative activity appears to be due to the presence of the bacilli in the cells forming the perivascular lymphatics. Active multiplication of the bacilli has taken place in the protoplasm of many of these cells, some of which show solidly stained compact masses of the bacilli. In one rather large lymphatic the bacilli are plainly seen in the cells forming its wall and also in the endothelial cells lining the lumen. In some sections stained with carbol-fuchsin cold for two or three minutes, decolorized with 5 per cent nitric-acid alcohol, and then counter stained with methylene blue the bacilli are much more conspicuous and are found in enormous numbers.

The crust removed from the nostril shows the corium and epidermis, the latter broken in places and containing in the tissures masses of cornified surface epithelial cells. The corium is the seat of proliferative inflammation with the formation of one or two small nodules similar in size and form to tubercles, but differing from these somewhat in structure. One is quite circular in outline and is composed of epithelioid and embryonic cells with a small amount of intercellular substance, but there are very few lymphoid cells and no sign of caseation. It is traversed at the center by a newly-formed capillary. These nodules differ from tubercles in the absence of central caseation, the presence of capillary blood vessels, and the scarcity of lymphoid cells.

Bacilli are also found in these sections, but in smaller numbers than in the sections from the surfaces of the unbroken nodules.

No further description is necessary. The peculiar granulomatous or proliferative inflammation, the presence of newly-formed capillaries, and of bacilli in enormous numbers which correspond to the tubercle bacillus in form but are brightly stained by a method that will not affect that organism, the absence of caseation, and the small number of lymphoid cells present, all confirm, in the strongest manner, the diagnosis of leprosy.

* * * * * * *

I arrived at this post on the morning of May 2, 1903, and examined the patient thoroughly on the afternoon of the same day and found as follows: General condition fair, appearance about the same as when seen before, which was the early part of the year, temperature 101½, respiration 20, pulse 95, heart and lungs normal, liver and spleen slightly enlarged, nodular eruptions of the skin all over the face and neck, a scattering on the back, chest, shoulders, elbows and extensor services of the lower limbs, the nodules ranging in size from a small shot to a good-sized marble and of a dark red or a brownish red or slate color, exhibiting a waxy-like polish, some soft, others very hard, and the different nodules exhibiting different degrees of anesthesia, anesthesia appearing since seeing the case the first time. The forehead was quite prominent and thickened, caused by the large number of nodules and infiltrations, between which were deep furrows, eyebrows had entirely disappeared, the cheeks, lip, and chin were also affected in like manner; the nose very prominent, being quite broad and swollen, and the nostrils nearly occluded from the nodular infiltration. Upon the lower left ala was a running sore or ulcer from which a foul-smelling discharge was constantly given off. The lymphatic glands all over the body were greatly enlarged, especially the submaxillary, cervical, and groin glands. The patient claimed that during the past three months he had experienced peculiar feelings of a painful character throughout the body, sometimes in the head, again extending down through the limbs; sometimes being of such a severe nature as to interfere with his rest at night. Microscopical examinations were made from the cut surfaces of nodules removed from different parts of the body, also from the nostrils and from the discharge from the ulcer on the nose, and in all cases large masses of the lepra bacilli were found. The blood, saliva, urine, and feces were examined in a like manner with negative results; examinations made of sweepings from his quarters, and flies and mosquitoes caught there revealed nothing.

Apparatus used in treatment.—The induction coil and the static machines are used in connection with this work, the coil being of the Queen type M and capable of giving a 15-inch spark, with two interrupters—an independent vibrator and a mercury turbine. The static machine used in the treatment of this case is an apparatus of the Holtz type with 16 revolving glass plates 32 inches in diameter, the so-called Morton-Wimhurst-Holtz influence machine.

The electrical power, which is the direct current, used for the purpose of exciting and propelling these machines, is obtained from a 110-volt dynamo operated by an 11-horsepower oil engine. A small ½-horsepower motor is utilized to run the static machine.

The Mueller tubes used with the static machine are three in number, and according to Alher's classifications are "medium soft," capable of giving a gray-black detail of the skeleton, and "hard," capable of giving a gray one (corresponding to a spark gap of from 2 to 5 inches), also hard tubes capable of giving a good fluoroscopic outline of the skeleton of an average man at 22 inches. The Queen self-regulating tube is used exclusively with the coil machine, and thus far has proven highly satisfactory, because the degree of vacuum is completely under control.

In the treatment of this case different nodules have been subjected to exposures from tubes of different degrees of hardness and at various distances from the anode to the skin.

From what experience I have had thus far with X-rays, I have adopted as a routine measure an exposure of from fifteen to twenty minutes to rays excited by a static machine using medium tubes, and from ten to fifteen minutes with the coil, the distance from the anode to the patient's skin with the coil being greater than with the static machine. The length of exposure, however, is, of course, dependent upon the quality of the rays, the distance of the anode from the exposed surface, and the frequency of the treatment.

Due to the delay in receiving the apparatus, the time consumed in setting it up, and other minor delays, such as caused by the grounding of the dynamo, etc., actual treatment was not commenced until May 19.

Treatment.—Before the patient leaves his quarters, which are situated about 75 feet to the rear of the hospital, he is required to wash his hair, face, neck, and limbs with hot water and soap, and, after drying, rinses the parts with a weak bichloride solution. Just before he enters the hospital he puts on a long gown with hood attachment; he is then conducted to the X-ray room, where the treatment is given. Upon leaving the building the room is thoroughly aired and disinfected, the chair and things he comes in contact with are washed with a strong solution of bichloride, and the gown is removed at the outer door and immediately immersed in a solution of bichloride (1 to 4,000) for six hours. As the exposures are all localized, the surrounding parts are protected by shields of sheet lead, of which several thicknesses are on hand. These shields have a diaphragm or opening of sufficient size through which the rays reach the diseased parts.

As this is one of the first cases of leprosy ever treated by X-rays, and the effect of the light upon the nodules and the idiosyncrasy of the patient toward this kind of treatment were not known, great precautions were observed to prevent burning. The treatment was commenced on May 19, the middle knuckle of the right hand and the right ear being selected for this purpose, partly because these nodules were in a desirable place to treat and partly because they were of the most prominent on the body. Before treatment was commenced microscopical examinations were made from cut scrapings of each, and masses of the bacilli were found. The static machine was used to energize the tubes for the first few times and later on the coil. The left ear was next attacked, this being treated in a similar manner and with the same technique. The chin, nose, both cheeks, and forehead were then begun on, the technique in all cases being about the same. In the case of the nose and right ear slight burns were experienced, but of such a superficial nature that no bad effect followed.

No changes in the nodules were noticed in most cases until from seven to ten exposures had been given, when a slight dermatitis would appear to the extent of exfoliation of the epidermis and with serous effusion, which examined microscopically revealed large numbers of lepra bacilli. In all cases this dermatitis would not last over four or six days, leaving the skin a dark brown or tan color, the tan extending over the surrounding area. The condition of the skin over these areas would also undergo great changes, where it was firm, tight, and very much on the stretch and of a glistening appearance before exposure to the rays, it would become loose, the shiny appearance disappear, and in many cases wrinkles form over the exposed surfaces.

That many of the smaller nodules have disappeared and the larger ones are decreasing in size there can be no doubt, this being apparent not only to the patient and myself, but to all who have seen the case, and where the nodules were of a hard and firm consistency and without any feeling they have been rendered soft, pliable, and freely movable, and in most cases anaesthesia has about subsided.

Until the past few days in has been almost impossible for the patient to shave himself without frequently removing the razor from his face, due to the number and size of the nodules, but at present he is experiencing none of these difficulties and can now shave without removing the razor for a single nodule.

The patient had a continuous elevation of temperature ranging from 99½ to 101½, and this subsided several days after the X-ray treatment was commenced. As no medicines were administered during this time, it seems more than probable that the lowering of the temperature was due to the treatment, also with the lowering of the temperature the pains and sleepless nights ceased, and at present the patient is enjoying the best of health, and, as he expresses it, he never felt better in his life.

While it is too early to form definite and sweeping conclusions regarding the value of the X-rays in the treatment of leprosy, the results thus far obtained look decidedly favorable, although it is not yet possible to give a prognosis as to the outcome of this particular case.

BERI-BERI.

This disease caused 626 admissions, equal to 7.75 per thousand of strength, a rate for the whole Army larger than that of typhoid fever. All cases originated in the Pacific islands and nearly all among Philippine Scouts. There were 23 cases and 2 deaths among white troops, 5 cases with 1 death among colored, and 598 cases with 29 deaths among Filipino soldiers.

It appears that this puzzling disease will be a very decided factor in the morbidity and mortality of our Malay troops, and will but slightly affect the American-born soldier.

Col. Charles Smart, assistant surgeon-general, the chief surgeon of the Division of the Philippines, reports as follows:

During the past year several of the companies of Philippine Scouts suffered severely from beri-beri. The disease prevailed extensively among the native troops at Laguan, Samar, in August, 1902; in Iloilo in September and October, and at Canayan, Isabela, in 1903.

Most of our medical officers attribute the onset of the disease to a defective dietary in which there is an excess of carbohydrates in the form of rice and a deficiency of proteids, and recommend that the rice allowance be lessened, the use of wheat bread and corn meal encouraged, and the allowance of meat and beans be increased. Many consider rice to be the main factor in the causation of the disease, and in the diet of those affected this cereal is usually excluded; but this view can hardly be accepted in view of the many rice-eating people who escape the disease. Some medical officers have therefore fallen back on the assumption that the disease is due to the use of rice that has become mouldy or damaged by changes that have occurred during transportation in damp ships or storage in damp houses, but the damaged condition of the rice used prior to an outbreak of the disease has not been demonstrated.

The Thirty-ninth and Forty-fourth Companies of Philippine Scouts were the sufferers at Iloilo. The commanding officer of the latter company states that for a year the health of his men was excellent and no case of beri-beri occurred among them. Owing to the prevalence of cholera in the neighborhood, communication with the markets was interdicted and this quarantine cut off the supply of vegetables, restricting the command to a diet of rice and meat. In the third week of the qaarantine the first case of beri-beri occurred, and soon afterwards one-third of the company was affected. It would seem, therefore, that the disease was possibly not caused by the rice, but by the want of fresh vegetables that had heretofore been associated with it. The company was shortly afterwards moved to Guimaras.

It seems, however, that rice, if a factor at all in the production of the disease, is less powerful than a specific infection of the locality. The disease does not appear to be infectious from man to man, but to spread among the membership of a command because all are exposed to a morbific influence existing in the locality. This is shown by the effect which a removal to a new locality has in checking the further spread of the disease, and the more rapid recovery of those who are already affected.

The latest endemic which illustrates this position occurred in March, 1903, in the Twenty-seventh Company of Philippine Scouts, stationed at Cauayan, Isabela. The disease was believed to have been brought to the post by the company. The company was sent to Tumanini, Isabela, and shortly afterwards the disease was shaken off. The successor of this company at Cauayan was the Twenty-eighth Company. The barracks were new, isolated, and situated on high ground, constructed of bamboo and nipa, with a split palma brava floor, 150 by 25 by 18 feet. The only fault in this building was that the subfloor space was too small, the floor in parts of the building being no more than 13 inches from the surface of the ground. The hospital building, about three-quarters of a mile distant from the barracks, was constructed of stone and wood, of two stories, the upper used as a ward for the sick. The troops were getting the full native ration and drew flour in preference to rice; the water supply was boiled; the men were engaged in garrison duty only; mosquito bars were used by all. The post surgeon was unable to discover any case of beri-beri among the natives in the neighborhood, but during the month of March 33 cases were recorded on the monthly report of sick and wounded. Many of the cases sent to the post hospital improved rapidly, but immediately fell sick again on their return to quarters. All the cases were sent to the station hospital at Tuguegarao, Cagayan, during the month, and the company abandoned the post of Cauayan on April 1. As soon as the sick left the post the improvement in their condition was so marked that only 23 of them were taken on sick report at Tuguegarao. Of these, 19 were returned to duty during the first half of the month of April, and only 4 remained under treatment on the last day of the month.

The following concerning beri-beri is from the report of a board of officers appointed by paragraph 5, Special Orders 297, Headquarters Division of the Philippines, December 4, 1902, Brig. Gen. Theodore J. Wint, U. S. Army, president, to investigate and report upon surra and other tropical diseases of horses and mules, and to examine into and report upon various subjects pertaining to military administration in India, Burma, and Java. The report is dated Manila, P. I., June 8, 1903:

"Beri-beri prevails endemically in India, Burma, and the whole of the Malayan peninsula, though there had been no case in that portion of India or Burma visited by the board amongst the troops in several years, nor had the medical officers now stationed at these garrisons had any experience with it. In Java, however, the board found the disease existed amongst the troops as epidemic. Great difficulty was experienced in eliciting the necessary information from the Dutch officials, who generally were unable to speak English. Dr. Fock, in charge of Base Hospital at Batavia, and a thesis by Dr. Bentley, furnish the following data:

"'The causes of beri-beri are not generally understood. As a rule the number of admissions to hospital in rainy season is augmented. That certain length of residence in a prison was essential for its production, but as the disease developed, this period became more curtailed. That damp and moisture unquestionably were a strong auxiliary to the disease. That any influences which tend to depress or lower the vital or resisting powers of the system, impoverished the blood, etc., may be among the causes of the disease. That it was a very rare thing for a woman or a boy under twenty to be attacked with it. That it was very much more common amongst the natives than Europeans and a certain period of residence in an infected locality appears to be necessary for its production. Overcrowded and badly ventilated rooms, the condition of soil, physical exhaustion and mental depression are alleged predisposing causes.'

"Dr. Bentley is of the opinion that the six agents chiefly considered in the production of beri-beri in recent times are diet, impure water, damp and moisture, exposure to cold, and great alterations of temperature and malaria.

"Further he states, that this disease is not caused by any particular diet is clearly proven by the fact that all classes of individuals are liable to contract it, natives or Europeans, whether under favorable or unfavorable circumstances as regards food. It has occurred to persons when exposed to its influences who have had the same diet all their lives, in free men who have had a choice of diet, in European officers as well as men, and in natives working on their own account living in quarters of their own selection. Yet the history and progress of the outbreak of the disease in the prison in Singapore in June, 1880, shows conclusively that the diet has been a factor in its production. That the most satisfactory results were obtained by largely increasing the amount of nitrogenous foods and decreasing the carbohydrates. In Java no rice is supplied the patients, but wheaten flour, steak, and a kind of black bean are the principal food furnished.'

"The authorities there are of the opinion that while the diet has nothing to do with the cause of the disease, it is possible that its poverty in respects of its nitrogenous constituents may predispose the blood of the native soldiers to the reception of the poison, whatever the peculiarity of that virus may yet be discovered to be.

"Of the five causes mentioned above, Dr. Bentley is of the opinion that all may be eliminated as having any direct bearing on the disease, except 'damp and moisture' and 'exposure to cold.' Damp and moisture in the tropics being conditions synonymous with malaria, there being few instances where the two are not found together, for in well-drained districts malaria is almost absent. There can be little doubt that without these conditions (damp and moisture) the exciting cause of beri-beri could not exist, hence the authorities hold that this is a strong proof of the malarious origin of the disease. But as the presence of a parasite similar to malaria has not yet been discovered, this theory is purely speculative.

"Observations show that exposure to cold or night air may be the cause of bringing on an attack of beri-beri in those who are already in a low state of health, but whether this could be brought about and a case of true beri-beri produced without the presence of the poison is a doubtful question.

"The board was informed by Dr. Fock that it was almost invariably true when the patients were sent to the Hill Hospital and a nitrogenous food supplied them, they began to improve immediately, and, provided they reached there when the disease was in its early stage, recovery in a few weeks was almost sure. Some, however, being attacked in remote districts, and the authorities being unable to transport them before some time elapsed, had fewer chances of recovery."

MALTA FEVER.

Three special reports of cases of Malta fever were received during the fiscal year, and as this disease may play an unexpectedly important part in the health statistics of the Army brief notes on each are here given:

Case I.—Lieut. W. De W., assistant surgeon, U. S. Army, sailed from Manila for San Francisco, October 1. He had not been in particularly good health for several weeks, but no specially suggestive symptoms are of record. On the voyage he suffered once or twice from short febrile attacks lasting a day or so, but not severe enough to induce him to take his temperature. A short attack at San Francisco and another while crossing the continent also occurred; in neither case was the temperature recorded. November 10 the patient entered the Army Medical School at Washington as a student officer, and during the first week in December, along with his class, began the study of the micrococcus melitensis in the laboratory and continued it during the month.

Near the end of the first week in January the patient began again to have fever, at first intermittent. A regular record of temperature was only begun on January 16 and continued until March 17, when he was sent South as a convalescent. From January 23 he was treated at the general hospital, Washington Barracks. Three distinct periods of comparatively high pyrexia (101 to 104 F.) were observed, from January 16 to 23, February 1 to 5, and March 3 to 6. Between these exacerbations the temperature was normal or below in the morning and from ½ to 2 above in the evening. Malarial parasites were repeatedly sought for and never found, but the serum test with the micrococcus of Malta fever gave positive results in dilutions from 1 to 50 to as high as 1 to 250. It is most probable that this case was due to self-infection in the laboratory of the school in December, but it is not altogether impossible that the patient had Malta fever before leaving Manila, which, if true, indicates a duration of six months or over in this case. Other symptoms were profuse sweating, irregular chills, and sleeplessness.

Case II.—Sergeant F. J. R., Fourth Infantry, was transferred December 14, 1902, to Fort Sam Houston, Tex., from Fort Ringgold, for observation and treatment, the diagnosis being chronic malarial fever and cachexia, with chronic muscular rheumatism. From June, 1899, to June, 1900, he had suffered from fever and rheumatism following service in the Philippine Islands, and was treated several months at Hot Springs, Ark. He then remained well until August, 1902, when the present attack evidently began, lasting at Fort Ringgold, Tex., and Fort Sam Houston, Tex., until January 3, 1903. Symptoms were irregular fever, more or less continuous, sciatica, pain in shoulder and neck, and constipation. His blood was repeatedly examined for malarial organisms, and tested for agglutination by typhoid and paracolon bacilli, but the tests were always negative. Finally, a specimen sent to the Army Medical Museum and tested with the Malta fever germ gave a positive reaction.

Case III.—Private A. N., Hospital Corps, U. S. Army, admitted to the general hospital at the Presidio, April 22, 1903. In 1901, in the Philippine Islands, had an attack of fever, diagnosed as malarial, lasting five weeks, and unaffected by quinin. He did not feel well after this attack for a long time, but had pain in joints and back at intervals until the present exacerbation, which began April 19, 1903, with a severe chill, headache, pain in back and knees. Examination of blood was negative for malarial parasites, but a positive reaction was obtained with the micrococcus of Malta fever, an agglutination finally occurring immediately upon adding the blood serum in dilutions as high as 1 in 500.

This was the only positive reaction in nine tests for Malta fever made at this hospital.

The symptoms of this fever are so obscure and clinically it so closely resembles irregular malarial and typhoid fevers, that a positive diagnosis seems impossible without the blood test.

BUBONIC PLAGUE.

Bubonic plague again made its appearance in Manila early in 1903, but no case has occurred among troops. The disease is almost entirely confined to the Chinese and Malay residents, the former race furnishing by far the greater number of cases. All possible measures were taken against the disease, which seems to be held in check.

INTESTINAL DISEASES.

A marked reduction in intestinal affections was recorded in 1902, although this class of diseases still remain among the very highest in admissions and mortality. There were in all 23,474 admissions, equivalent to a rate of 290.61 per thousand of strength, while in 1901 the figures were 28,918 cases, or 312.67 per thousand. The mortality was also reduced about one-third, being, in 1901, 3.64 per thousand, and in the past calendar year, 2.53, as may be seen in detail in the following tables:

WHOLE ARMY.

	Cases.		Discharges.		Deaths.	
	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Dysentery, acute	3,146	38.95	7	0.09	86	1.06
Dysentery, chronic	1,864	23.08	97	1.20	82	1.02
Diarrhea	17,083	211.48	14	.17	13	.16
Enteritis	1,113	13.78	4	.05	14	.17
Appendicitis	268	3.32	15	.19	10	.12
Total	23,474	290.61	137	1.70	205	2.53

UNITED STATES.

Dysentery, acute	202	5.08	1	0.03	2	0.05
Dysentery, chronic	417	10.49	63	1.59	10	.25
Diarrhea	3,590	90.34	9	.23		
Enteritis	216	5.44	2	.05	....	....
Appendicitis	133	3.35	11	.28	2	.05
					5	.13
Total	4,558	114.70	86	2.18	19	.48

PACIFIC ISLANDS.

	Cases.		Discharges.		Deaths.	
	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Dysentery, acute	2,928	77.53	6	0.16	84	2.22
Dysentery, chronic	1,442	38.18	33	.87	72	1.91
Diarrhea	13,309	352.39	5	.13	13	.34
Enteritis	893	23.64	2	.05	12	.32
Appendicitis	124	3.28	3	.08	5	.13
Total	18,696	495.02	49	1.29	186	4.92

CUBA AND PORTO RICO.

	Cases.		Discharges.		Deaths.	
	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Dysentery, acute	16	4.89				
Dysentery, chronic	5	1.53	1	0.31		
Diarrhea	184	56.20				
Enteritis	4	1.22				
Appendicitis	11	3.36	1	.31		
Total	220	67.20	2	.62		

Reports received from the Manila hospitals and from the general hospital, Presidio of San Francisco, Cal., seem to indicate that the specific form of dysentery due to the bacillus of Shiga has been rare during the past year. Cases of chronic amebic and chronic catarrhal dysentery have been numerous and proved, as usual, most obstinate and discouraging to treat.

In April, 1903, First Lieut. Henry H. Rutherford, assistant surgeon, U. S. Army, stationed at the U. S. Army general hospital, Presidio of San Francisco, Cal., began the treatment of chronic dysentery, sprue, and chronic entero-colitis with pure olive oil, and in the short time since the method has been instituted very encouraging results have been obtained. From a paper accompanying the annual report of the commanding officer of the hospital for the fiscal year ending June 30, 1903, the following interesting description of the treatment and the results so far obtained is given:

> Remarkable results have been obtained at this hospital from the use of pure olive oil in the treatment of chronic dysentery, and while as yet nothing is known as to the exact manner in which the oil acts in these cases, except that it is a cholagogue and a nutritive, the results speak for themselves. Moreover, from an understanding of the morbid anatomy of this class of cases, one can readily understand the futility of the attempted application of intestinal antiseptics in many cases which have been given such treatment, and from a comparison of the two treatments for a chronic wasting disease, whose pathology almost invariably involves the liver and frequently the kidneys, one is inclined to believe the oil, even if it possesses no other property than those above mentioned, to be the more rational.
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> At this hospital, where a very large majority of the cases treated come from the tropics, there have been admitted since June 30, 1902, a total of 3,426 cases, of which 1,124 were chronic dysentery, sprue, and entero-colitis, chronic, and of the 74 deaths from all cases during that time, 26 were from these conditions. Furthermore, from the fact that cases of chronic dysentery remain in hospital on an average of two months longer than any other cases, excepting chronic gunshot wounds and tuberculosis, and that when apparently cured and sent to duty they frequently return to the hospital with all of the original symptoms present, it is apparent that the duration of illness in this class of cases is by far greater than in that of any other.
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> The morbid anatomy and pathology of chronic dysentery have been made familiar by the writings of various authors, and, in general, may be briefly stated as follows: A process of inflammation, ulceration, necrosis, and abscess formation, in all stages of chronicity, of the mucosa and submucosa of the lower two-thirds of the large intestine, in some cases extending into the smaller intestine, and even involving the stomach, accompanied by wasting and atrophy of the glands and of the muscular walls of the

entire tract. A very large percentage of all cases are complicated with, at first, chronic hyperemia of the liver, later, decided atrophy, and frequently with abscess formation in the organ. A considerable number of cases in addition are complicated with chronic nephritis.

Of the various organisms that may be concerned in this disease two only have been isolated as known causes, the ameba dysenteriæ and bacillus of Shiga, which organisms, in the first instance (ameba), burrow deeply into the tissue, or, in the second (bacillus), in great numbers, become so deeply embedded in mucus and detritus along the tract as to make it all but impossible to reach them with applications of any of the intestinal antiseptics.

With this brief summary of the conditions to be coped with, it may be seen that, without as yet a specific, it is but natural that of the numerous treatments which have been advanced up to the present time no one has sufficiently established itself to warrant its adoption as the routine method. Hence, we learn that patients linger on, their condition vacillating between better and worse through months or years of time until some complication, liver abscess, chronic nephritis, etc., or some intercurrent disease brings the end.

The following medicinal methods in vogue for the treatment of chronic dysentery have been used more or less extensively in the service of this hospital: Irrigations by solutions of quinin sulphate, silver nitrate, mercury bichlorid, and hydrogen peroxid; enemata of turpentine, and bismuth subgallate in milk, or of tincture of opium and fluid extract of ipecac in water; internal treatment by bismuth, salol, and other drugs; tonic treatment by strychnin, iron, quinin, etc.

It will be observed that the use of most of these remedies is based upon their properties as antiseptic applications, ipecacuanha alone excepted; and it might be added that such treatment in the more chronic stages of the disease has been indicated solely on account of greater or less value in the acute and subacute stages.

It is obvious to one considering the pathology of the chronic amebic, as well as the specific types of dysentery, that high enemata of antiseptics of whatever strength can do no more than wash, and in some measure cleanse most superficially the lining of the colon. With these treatments, of course, are always combined a suitable dietary and needed tonics.

The cases treated to date with pure olive oil were 26 in number, as follows:

1. Diagnosis: Dysentery, chronic, catarrhal, complicated with chronic parenchymatous nephritis. Original admission: October 13, 1902. Oil treatment begun April 14, 1903. During six months, October 13, 1902, to April 14, 1903, this patient was treated successively by irrigation of 1 to 5,000 enemata quinin solution, 2 per cent peroxid injection (increased daily up to 10 per cent) combined nitrate of silver and intestinal antiseptics, ipecacuanha, and various internal treatments, including tonics. In this period his weight decreased from 116 to 90½ pounds, and his bowel movements increased to as many as 15 in twenty-four hours. Although put on a strictly liquid diet, his food passed practically unaffected by digestive processes.

This patient was placed on the olive-oil treatment April 14, 1903. Improvement in his general condition could be noticed in three days, and in one week his stools began to be formed. His recovery has been phenomenal, and in the two and one-half months he has been on the olive-oil treatment his weight has increased 69 pounds, the character and number of defecations being absolutely normal. He is able to take exercise and looks the picture of good health.

2. Diagnosis: Dysentery, chronic, amebic. Original admission: October 13, 1902. Oil treatment begun April 15, 1903. During the period October 13 to December 1, 1902, patient lost 14 pounds on the following treatments: Peroxid, 2 per cent; nitrate of silver, 1 to 1,000; quinin enemata, 1 to 5,000; bismuth subnitrate and bismuth, salol, and pepsin internally. After December 1, 1902, patient was put on nitrate of silver injections (0.001 per cent) daily. On January 10, 1903, he was given enemata and internally astringent pills, gaining on this treatment 9 pounds. Oil treatment instituted April 15, 1903, and he has since gained 13 pounds. His general health and condition are greatly improved and his feces are normal, although from time to time a small quantity of thick, pure mucus is passed at stool.

3. Diagnosis: Dysentery, chronic, amebic, recurring. Original admission: November 14, 1902. Oil treatment begun April 14, 1903; gained 16 pounds. The patient's nervous system is weak. If he remains in bed only a few days his feces become normal in quantity and quality, his weight increases and so does the number of red blood cells. After being up about ten days he drops back to where he was before, notwithstanding the fact that the treatment is persisted in. His red blood cells vary in a week as much as 1,000,000 per c. c. Although, taken as a whole, his condition has greatly improved, it can not be said that he is cured.

4. Diagnosis: Dysentery, chronic, catarrhal. Original admission: November 27,

1902. Oil treatment begun April 16, 1903. This man's bowels had improved before going on the oil treatment, but his nervous system, general condition, and character of feces improved so rapidly on olive oil that it could be noticed from day to day. During the five and one-half months, November 27, 1902, to April 16, 1903, the patient was treated thoroughly by the combined nitrate of silver and intestinal antiseptic treatment. The peroxid and the ipecac locally, salol and bismuth subgallate internally, together with tonics and strychnin. During the early part of the period the patient's general condition would improve slightly for several days and then relapse. His case became complicated by sprue, and for a period of two months his excreta were thick fluid in consistency, green in color, and frothy. No permanent improvement in the condition of the bowels took place until the oil treatment was instituted. During five and one-half months the patient gained 26 pounds, whereas, upon oil and nitrogenous diet he gained 43 pounds in one and three-quarter months, being able two weeks before discharge to do general fatigue work. So far as known no recurrence of the dysenteric symptoms have arisen.

5. Diagnosis: Dysentery, chronic, catarrhal, complicated with sprue and chronic parenchymatous nephritis. Original admission: November 29, 1902. Oil treatment begun May 11, 1903. The anemia and emaciation in this case were very marked. There is slow convalescence attributed to the complication of nephritis, rendering it impossible to give tissue-building diet, whereas the condition of the bowels prohibit the use of the carbohydrates. However, he has gained 13 pounds in weight and his general condition has improved.

6. Diagnosis: Dysentery, chronic, amebic. Original admission: December 23, 1902. Oil treatment begun April 15, 1903. The dysentery in this case had begun to improve when the patient was put on oil. However, an increase of the oil aggravated the disease so that it was necessary to restrict the diet to liquid and increase the dose of oil. The seventh day after the increase the patient went on nitrogenous diet and made an uninterrupted recovery. His gain in weight was not marked, but all the symptoms of dysentery had disappeared, and the improvement in his general appearance was very noticeable.

7. Diagnosis: Gastro-enteritis, chronic. Original admission: January 13, 1903. Oil treatment begun April 14, 1903. The patient from the time of admission seemed in very good physical condition, but the intestinal and nervous symptoms of dysentery remained. His excreta did not become normal, to remain such, until June 15, 1903. The oil improved the pathological conditions considerably, but did not materially increase patient's weight.

8. Diagnosis: Dysentery, chronic, catarrhal, complicated with anemia, acute, secondary to dysentery. Original admission: March 3, 1903. Oil treatment begun April 27, 1903. During the two months from March 3 to April 28, 1903, patient's weight increased 38½ pounds (from 91 to 129½) on the following treatments: Enemata of solution of peroxid of hydrogen, twice daily; pepto-magnan, bismuth, and tonics, internally. Diet nitrogenous. He was placed on the oil treatment April 27, 1903, and since that time has gained 9½ pounds, up to about normal weight. His general appearance is excellent, but the pathological improvement has only been of a moderate degree. This case is the exception wherein tonics and local antiseptics have proved as efficient as the oil.

9. Diagnosis: Dysentery, chronic, catarrhal. Original admission: March 11, 1903. Oil treatment begun May 20, 1903. During the two months from March 11 to May 20, 1903, patient gained 7 pounds on the following treatment: Enemata of 5 per cent solution of peroxid of hydrogen and iron, quinin, and strychnin, internally. On account of the persistent gastric catarrh it has been necessary to place this patient on a strictly milk diet, which accounts for the loss in weight. The pathological condition improves from time to time, but recurs.

10. Diagnosis: Dysentery, chronic, amebic recurring, complicated with chronic malarial cachexia. Original admission: March 26, 1903. Oil treatment begun April 17, 1903. From April 17 to May 5, 1903, this patient gained 6½ pounds, and stools became normal. On May 8 he suffered from considerable congestion of both liver and spleen, and after this time the oil seemed to have a detrimental effect, the patient's weight becoming less, and gastric digestion poor. However, on June 3 the excreta were normal, although a small quantity of purulent mucus was still passed in stool. The oil was stopped on June 5, and since that date the patient has gained slightly. From May 5 to 31 this patient lost 12 pounds, although taking oil. This loss is attributed to the malarial dyscrasia so prominent during this period.

11. Diagnosis: Dysentery, chronic, catarrhal. Original admission: April 3, 1903. Oil treatment begun April 14, 1903. This patient's general condition improved slowly from the time the oil was begun. The dejecta were practically normal upon admission, but the intestines were more or less irritable and so continued until the last ten days of the treatment, when they became normal and remained so.

12. Diagnosis: Dysentery, chronic, amebic. Original admission: April 3, 1903. Oil treatment begun April 16, 1903. Upon admission this patient's digestive apparatus was apparently in fairly good condition. However, he suffered principally from impoverishment of the entire physical economy. His intestines were especially weak and circulation was very poor. He gained 25½ pounds in five and one-half weeks, and during this time the character of his excreta, as well as his general appearance, were greatly improved.

13. Diagnosis: Dysentery, chronic, amebic. Original admission: April 3, 1903. Oil treatment begun May 14, 1903. The condition of this man's intestines had improved considerably when admitted, although they did not become normal until nearly six weeks later. The prominent symptoms at time of admission were nervous depression, anorexia, and poor digestion. He gained 6½ pounds during the first week and steadily improved to date of discharge, gaining in weight 33½ pounds in a little over two months, and his general appearance was excellent.

14. Diagnosis: Gastro-enteritis, chronic, catarrhal, complicated with appendicitis, chronic, catarrhal and ischio-rectal abscess, left. Original admission: April 7, 1903. Oil treatment begun April 14, 1903. Upon admission this patient was 25 pounds under weight, very nervous, suffering from indigestion, chronic catarrhal appendicitis and incipient ischio-rectal abscess. He suffered for some months upon admission with gastro-enterocolitis. The administration of oil was begun, and his weight increased in three days. His excreta showed mucus on one occasion only thereafter, April 28, 1903, and the symptoms of appendicitis entirely disappeared. His excreta was entirely normal after April 30, 1903, and he gained 28½ pounds in thirty-two days. On May 12, 1903, the symptoms of ischio-rectal abscess recurred, and he was transferred to the surgical ward for operation.

15. Diagnosis: Dysentery, chronic. amebic. Original admission: April 25, 1903. Oil treatment begun May 20, 1903. The severe symptoms of dysentery had almost entirely disappeared when the oil treatment was begun. However, a chronic catarrhal condition of the colon still existed. Under oil, his general condition improved and his excreta became normal May 24, 1903, and so continued thereafter.

16. Diagnosis: Dysentery, chronic, amebic. Original admission: April 28, 1903. Oil treatment begun June 8, 1903. General condition improved. Gain in weight slight, only 6 pounds in three weeks. The patient's slow convalescence was attributed to tobacco, his nervous system being overcharged with poison resulting from excessive smoking.

17. Diagnosis: Dysentery, chronic, type undetermined. Original admission: April 28, 1903. Oil treatment begun May 1, 1903. Extremely emaciated and very anemic. Feces at present nearly normal, a little soft. Gain on oil, 31 pounds in two months.

18. Diagnosis: Dysentery, chronic, amebic. Original admission: April 28, 1903. Oil treatment begun May 3, 1903. Although this patient has not increased in weight to any great extent, his dejecta have become normal, and his general condition has greatly improved. It is very probable that larger doses of oil would have increased his weight more rapidly.

19. Diagnosis: Dysentery, chronic, catarrhal. Original admission: April 30, 1903. Oil treatment begun May 1, 1903. This man was much emaciated and debilitated. His excreta are now normal, and he has gained 45½ pounds in two months. His face has changed from a muddy, pinched condition to the full flush of healthy youth.

20. Diagnosis: Gastro-enteritis, chronic. Original admission: April 30, 1903. Oil treatment begun May 1, 1903. This man was markedly emaciated and very anemic. He has improved considerably, gaining 32 pounds in two months, this notwithstanding his debilitated condition on admission.

21. Diagnosis: Dysentery, chronic, amebic. Original admission: May 21, 1903. Oil treatment begun May 25, 1903. Although no amebæ were found here, patient gives a typical history. He was put on 30 c. c. of oil upon his arrival, but this amount stimulated flow of bile, causing vomiting. After six days, dose reduced and gradually raised to 90 c. c. of oil t. i. d. Gained in one month 18½ pounds, feces practically normal, and general condition greatly improved.

22. Diagnosis: Dysentery, chronic, amebic. Original admission; May 21, 1903. Oil treatment begun May 21, 1903. This man improved markedly until June 6, when chronic parenchymatous nephritis developed, and on milk diet he went down to 110 pounds. During the last week he has gained 6½ pounds; the condition of his stools and general appearance greatly improved.

23. Diagnosis: Dysentery, chronic, amebic. Original admission: June 2, 1903. Oil treatment begun June 7, 1903. The improvement in this case has progressed slowly, attributed to complication of severe alveolar abscess. However, there is a slight improvement in the condition of his excreta and a noticeable improvement in his general condition.

24. Diagnosis: Dysentery, type undetermined. Original admission: June 5, 1903. Oil treatment begun June 5, 1903. This man is well nourished and is not anemic, but the condition of his intestines has not materially improved.

25. Diagnosis: Dysentery, chronic, type undetermined. Original admission: June 6, 1903. Oil treatment begun June 8, 1903. This man's improvement has been slow, but both the general condition and that of the intestines have progressed very favorably, considering that his physical condition was very poor when admitted. A gain of 12½ pounds in twenty-four days has resulted.

26. Diagnosis: Gastro-enteritis, chronic. Original admission: June 13, 1903. Oil treatment begun June 13, 1903. On admission emaciated and slightly anemic, due to inability to properly assimilate food. After ten days the excreta became normal and no relapse has occurred. He exceeded all others in gaining weight during a short space of time, having gained over 12 pounds in four days. The total weight gained is 23 pounds in seventeen days.

The results obtained in the above summarized cases are, beyond question, superior to any heretofore observed in this hospital.

First. In that the general improvement has been constant and marked in every uncomplicated case, there having been as yet no relapse.

Second. Symptoms of hepatitis have disappeared in those cases in which they had previously been noted, and abscess of the liver has not as yet been found to develop in a single case.

The rationale of pure olive oil in this treatment is believed to be as follows:

It is cleansing, lubricating, and soothing to the inflamed mucous lining of the gastro-intestinal tract. It absorbs and removes mucus, detritus, and irritable gases, and so allays fermentation and irritation. It acts specifically on the liver through the portal system, stimulating that organ, which in the chronic cases of this disease is generally atrophied, and largely increases the flow of watery bile, a natural intestinal antiseptic and antifermentative. By stimulating and cleansing the liver and the intestinal tract it decreases the amount of toxines absorbed, relieves the kidneys of their added work, and in this manner clears the way for the entire organism to react from a state of inanition and over-intoxication.

Lastly, being the most easily digested of all oils, it is a most desirable heat-producing food for a combined diet in this class of cases.

Method of administration.—It is found in most cases that until the patient acquires a tolerance for the oil it is best taken with about equal quantities of hot milk. Cold oil and hot milk being of about the same specific gravity will, for a short time (one-half minute), so perfectly mix as to practically form an emulsion. Later on, without an exception, it is found that the patients acquire a relish and can take oil in any reasonable quantities at least four times a day. The oil is given about one hour before meal time in quantities of from 30 to 90 c. c., this in order to get the maximum effect on the empty stomach, intestines, and liver. The oil must be pure, virgin olive oil, and the California product has been found more desirable than the imported oils.

It has been noted in a number of the cases above given, though the significance of the fact can not as yet be determined, that numerous amebæ have developed in the feces of chronic cases, who have been lingering for some months, with but slight, if any, improvement in their condition, and who, so far as had been determined here, had not during that time shown the presence of the organisms.

ASIATIC CHOLERA.

Cholera in the Philippines in 1902 caused for the whole Army an admission rate of 6 per thousand of strength and a death rate of 3.54. For the force serving in the Pacific islands, which alone was exposed, the admission rate was 12.84 and the death rate 7.57 per thousand. The total number of cases was 485 and the deaths 286, a proportion of 1 death to 1.69 cases.

This terrible disease had not appeared among our troops for thirty-six years, when it caused in 1866 the sickness of 2,813 men, of whom 1,269 died. For troops exposed there were 211.9 admissions per thousand and 94.4 deaths, and again in 1867 there were 71 admissions and 32 deaths per thousand for all exposed troops. The malignancy of the disease was not as great in those years as in the present Philippine epidemic, for in 1866 1 death occurred to 2.22 cases and in 1867

1 death to 2.19 cases. When it is considered that in 1902 nearly half of the mean strength of the Army was serving in a tropical country with cholera everywhere prevailing, and that the native population showed during the same year a total (probably underestimated) number of 128,000 cases with 81,500 deaths from cholera, the great value of preventive measures based on more perfect knowledge of the disease is very evident.

The sickness and mortality among troops at the most cholera-stricken stations in the Philippines in no case approached the figures reported from the Kansas posts in 1867. At Fort Harker, for instance, out of 378 strength, white and colored, there were 43 cases and 30 deaths, while out of about 400 colored troops en route from Fort Harker to New Mexico 75 cases and 27 deaths took place. At Forts Hays and Wallace the rates were also enormous, and even at Governors Island, N. Y., out of 860 soldiers 35 acquired the disease and 18 died.

When cholera first made its appearance in Manila in March, 1902, the insular board of health, which is also the health board for the city, was fully organized. Provincial and municipal boards had been provided for, but the lack of competent civil physicians rendered their organization far from complete. In Manila the division commander was called upon for medical officers, and all that could be spared were detailed to sanitary work in the city. Many medical officers under orders to return to the United States were detained in Manila for this purpose. An attempt to confine the disease to the Farola district, where cholera had first appeared, was made and the district burned over; but when it was found that the disease was widely spread through the city such radical measures were abandoned and reliance placed on disinfection and general sanitation. The enormous part taken by the medical officers of the Army in the fight against cholera in Manila, to say nothing of their work in the provinces, where in most cases the whole burden fell upon their shoulders, has not yet been adequately recognized. By house to house inspection night and day, strict supervision of markets, protection of the water supply from the Mariquina River, closure of wells, and provision as far as possible of distilled water to the people, the epidemic was fought steadily in the face of opposition and even hostility, not only of the ignorant but of those who by education should have been assistants rather than obstructionists. The value of the sanitary work in Manila is very apparent when the sick rates from cholera are compared with some of the provincial towns where nothing could be done to check the disease.

The spread of cholera into the provinces was not long delayed. Before the end of March it had appeared in Bulacan, Cavite, and Bataan; in April it spread extensively in Luzon, and by the end of May it was reported from other islands.

Notwithstanding the timely warnings sent out from the headquarters of the division, the ample information from the office of the chief surgeon, and the strictest regulations as to quarantine and sanitation, the disease spread in all directions from Manila. In towns garrisoned by United States troops the medical and line officers strained every nerve to protect their commands, the native population of the towns, and, as far as possible, outlying barrios, by keeping out infection and preventing the spread of disease once introduced. The history of all cholera epidemics shows the impossibility of maintaining effective land quarantine, and the ease of communication between islands in the Philippine Archipelago by small craft renders marine quarantine there almost as imperfect. It is not surprising, therefore, that cholera spread by both land and sea. In a large proportion of towns the first recognized case of the disease occurred in a patient arriving from some infected point, and usually dying within a few hours. How many times the persons introducing the disease in a community were mild cases, and therefore unreported, will never be known, for the possibility of the cholera vibrio being conveyed from place to place by an apparently well person and being discharged in his evacuations is recognized. Very often the first case appeared in an outlying barrio where close supervision was impossible. The native officials have generally proved apathetic, if not actively hostile, to all sanitary measures undertaken by the authorities. Native quarantine guards and inspectors were nearly always inefficient. The people superstitious and fatalistic, suspicious of Americans, and probably feeling keenly the necessary restrictions of quarantine and detention, the interference with the sale of fruit and vegetables and the general disturbance of their small commerce between town and town, formed the worst possible foundation for sanitary work, to say nothing of their well-known unhygienic surroundings and mode of living.

The means adopted to stamp out the disease when introduced were theoretically perfect. By General Orders, No. 66, Headquarters Division of the Philippines, March 25, 1902, the sanitation of all provincial towns was intrusted to the medical officers of the division, who were announced as members of boards of health, where such existed, and ordered to constitute boards where there were none. The towns were divided into districts, inspectors and sub-inspectors appointed, every case of sickness and every death were ordered reported and received investigation, and restrictions placed on the sale of fruit and green vegetables. Sanitation of premises was carried out as far as possible. The people were instructed in the nature of the disease and the means of prevention in as simple words as possible. Where practicable distilled water was furnished to all, otherwise orders to boil all drinking water were issued and public boiling stations established. With an intelligent population, willing to cooperate for the public good, these measures would undoubtedly have met with the success they deserved, but ignorance, superstition, and untrustworthiness are not to be overcome in a few days or weeks. Cases were not reported, deaths were concealed, and the bodies buried surreptitiously or thrown in rivers. Restrictions as to water and food were violated whenever possible. Visiting between towns by unauthorized persons was never effectually checked. Where the roads were properly guarded the natives traveled by back trails in the mountains; every by-path became a channel by which the disease was extended. Nevertheless, the civil sanitary work so cheerfully assumed by the medical officers saved hundreds of lives and appreciably checked the epidemic in garrisoned towns. Where no troops were stationed the disease spread unresisted. Thus on the Isla de Verde, in Batangas Bay, out of a population of 2,500, between May 25 and June 23, 1902, 409 cases with 250 deaths occurred. The place was ungarrisoned, but as much assistance as possible was afforded from Batangas when the epidemic was reported. At Batangas, 12 miles away, with a population of 12,000, only 125 cases occurred in the pueblo proper, the comparatively good result being attributed to the fact that earth closets were in general use and that distilled water was furnished from the ice plant.

Maj. A. L. Haines, surgeon, U. S. Volunteers, in a report from this station, dated September 24, 1902, says in part:

> The first recognized cases were seen on an island in the bay of Batangas, called Isla de Verde, situated about 12 miles from this town. The disease made its appearance there about May 25, and between that date and June 23, 1902, when the epidemic was reported over—a little less than one month—there were reported 409 cases, with a mortality of 250, slightly over 61 per cent. The history of the source of the epidemic was that the cabeza of the principal barrio, San Augustan, had gone on a visit to Calapan, on the island of Mindoro, and on returning was taken sick and died the next morning, a few hours after arriving at his home. Cholera was then not known to exist on the island of Mindoro, but was subsequently reported as existing, and the official report of same showed for the first day 53 cases with 43 deaths. This offers reasonable grounds for believing that the disease had existed for some time before its presence was known, and is only another one of the many instances in which the natives concealed the existence of the disease from the authorities. There are good reasons for believing that the disease was transported from Manila to Calapan, Mindoro, probably by native boats, and from there to the island above named.
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> At this time water was very scarce on the island, and almost the entire population of about 2,500 came to the coast to get their drinking water, which was obtained from three wells situated in as many barrios. One of these wells was near the house where the cabeza died, and it is believed that the well became infected from throwing fecal matter or vomit in the vicinity. The epidemic spread rapidly from barrio to barrio until the entire island was involved, being more severe along the northern coast than anywhere else.
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> As soon as the existence of the epidemic on the Isla de Verde became known in the post, a launch was dispatched with a medical officer, having on board food and medicines and a native practicante. An investigation was made as to the nature of the disease and the means of its spreading. It was pronounced to be Asiatic cholera. The condition of the water supply was looked into and it was found that the water was drawn from shallow wells which were surrounded with animal and vegetable matter. The head men of the barrios were gotten together and instructed how to sterilize their drinking water and how to handle all food supplies in a cleanly manner. They were directed to erect plants for boiling water at their wells with large sugar kettles and ordered not to permit the use of any water for any purpose whatever that had not been so treated. The sick were seen as far as the limited time of the surgeon permitted, medicines administered, and a liberal supply left with the practicante who was instructed to visit all the barrios and attend the sick. A plentiful supply of rice and other provisions was left with the head men of each town, with instructions to make a proper distribution of the same. The entire island was placed in quarantine and every effort made to confine the disease to the island, but not with much success. The natives were in possession of large sailing bancas and continued to visit the barrios on the mainland of Luzon on the one side and Mindoro on the other, and even attempted to enter the river flowing through this town. Upon one occasion such a boat was intercepted at the mouth of the river by the inspector on guard at that point and upon examination was found to contain the bodies of two persons who had died during the night while en route to this town. Police guards were placed along the shore of this island at different barrios to prevent the landing of individuals from the infected island, but all such police supervision, owing to the indifference or the criminalty of the native inspectors, was found to be futile. The barrios on the mainland soon afterward became infected and the infection spread along the coast of Luzon to the south of this town.
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> Subsequent visits were made to Isla de Verde by the post surgeon and every effort made to limit the spread of the infection and to alleviate the suffering of the unfortunate natives, but with little success, as shown by the figures given. The epidemic continued to run its course until its force was spent, either in becoming attenuated or by exhausting the susceptible material.
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> The next case of this class of sickness was discovered at a barrio named Tingi, situated about 6 miles from this town on the northeast, and on the road to Ibaan and Lipa. This was seen on June 7, 1902. This barrio had evidently become infected from Lipa or vicinity, where cholera had been previously reported, by natives traveling to this barrio from Lipa, or from the river water flowing from Lipa and which

formed the main water supply for the barrio. Next a case was discovered in Batangas proper in the person of a native associate of a teamster who had come from Lipa a few days before. On the 11th 2 cases were discovered in another barrio outside of this town to the north, and on the 14th 2 cases were seen at the barrio Santa Clara, situated on the beach near the place of landing.

In the town of Batangas proper there was a total of 125 cases among the natives, with a mortality of 87, or $69\frac{3}{5}$ per cent. These statistics are fairly accurate, as it is believed that few if any cases escaped being reported by the inspectors, and all diagnoses were confirmed by a surgeon when so reported. This is a very small number for a population of 10,000 to 12,000, and is to be attributed, it is believed, to the fact that the dry-earth closet system was in quite general use during and previous to the epidemic, and to the use of sterile water supplied from the ice plant. These measures were adopted and enforced by the board of health at the time the military was in supreme authority in town. These cases were without doubt in part transported from adjacent infected towns by individuals becoming infected at such places and returning to this town, and subsequently developing the disease, and then, by their uncleanly personal habits and lack of proper house sanitation, infecting others through their food or water supply, and, in addition, some few cases were contracted from the river water which became infected and which some natives continued to make use of through ignorance or indifference, and in spite of all orders to the contrary. The figures given for the native cases outside of Batangas proper are not vouched for and yet they are probably as reliable as any to be had. The figures to be relied upon absolutely are those of the number of deaths. These statistics were always faithfully reported under Spanish times and the custom has still prevailed. The total number of cases in the barrios can only be estimated. The system of obtaining statistics was the best that could be employed, as it was impossible for a surgeon to be on duty in each of the forty-eight barrios attached to the town, many of them situated quite remotely from it. The plan adopted was to make the cabeza or head man responsible, report each day the number of cases to the inspector and practicante with the number of deaths. These reports came in daily and were consolidated. But in spite of these efforts many cases were concealed or not reported through the ignorance or indifference of the natives and native officials.

Taking the town proper as a basis, which shows 125 cases to 87 deaths, or about 70 per cent of deaths to the total number of cases, it would make the total number of cases in the barrios 1,167 to 817 deaths, but this is undoubtedly higher than the actual number of cases occurring. The death rate in the outside towns was very much greater, indeed must of necessity have been so, as it was impossible to give the sick in remote places the same attention and care that those in town received. I believe it safe to say that 75 per cent of the total number of cases occurring outside of the town died. This would make on that basis the total number of cases in the barrios about 1,089, which is probably not far from correct.

The soldiers of this command suffered very little from the epidemic, there being a total of 7 cases with 3 deaths, or $42\frac{6}{7}$ per cent. These cases were the result in most instances of individual disobedience of post sanitary regulations. At least two of the seven cases were traced to a Chinese restaurant and saloon, and one case was contracted while on detached service. The quartermaster civilian employees furnished most of the cases occurring at this post among Americans, which offers another argument for placing the large number of these employees under military control and discipline. Those here may be said most truthfully to have been absolutely without discipline and to have known no restraint beyond their own personal desires. As a rule it made but little difference to them what military ordinances were adopted to guard the command from infection; such orders were not to be enforced over them nor was obedience a matter of principle. As a result teamsters continued to drink water from infected streams when on the march or when hauling supplies from town to town; and corral men continued to visit native shacks and presumably to partake of such refreshments as were offered. For illustration: 16 teamsters came overland from Lucena with their teams to take station at this post, and after reaching this town they furnished several well-developed cases of cholera, to in turn act as foci for new infection to the soldiers of the command. A number of the men acknowledged to me that they drank water from the streams along the route. A total of 16 cases developed among the quartermaster employees of this post, with 7 deaths.

No comparison can well be made between the native troops and the natives in general as to power of resistance to this disease and as to mortality, because of the vast difference between the native troops and the average native. The native troops are typical of the average native sick with cholera only in nationality. The death rate of the native troops from cholera is notably less than among the natives of the town, the one being 45 per cent and that of the other 70 per cent, although the same medication was given. It must necessarily always be so, even if we were able to treat and care for both after the same manner. The native soldier is a better example of vigor and health, being selected for this very vigor and strength; and then again, he has been liberally nourished by a selected course of regimen, while the native victims of cholera frequently represented children and the infirm who had, at least for months past, been nourished on a limited supply of rice and fish, and therefore had little resisting power. Again, it was impossible to carry out among the natives sick with the disease the careful system of medication and diet that was given the native soldiers, although treated after the same methods that were instituted in our own hospitals and with our own corps of nurses; hence the vast difference in death rate between the native soldiers and that of the native population.

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The plan of management of the epidemic was that pursued in most places. A cholera hospital was established for the natives and one for the Americans. Attached to each was an observation tent or building where suspicious cases were placed until the diagnosis could be confirmed. At the native hospital a separate tent or house was erected for contacts. At first all native contacts were moved to these observation wards, but this plan was finally abandoned as it was found to be unnecessary and to entail a hardship on the natives.

Cholera is not any more contagious than typhoid fever, and where a second case developed it was not from contact with the sick, but with the infected material from such cases, or from the original source of infection. Hence, if the soiled clothing of the patients be destroyed and all vomited and excreted matter disinfected and the original infecting water or food excluded or rendered sterile, there is no excuse for a second case appearing. Exactly the same laws apply as in typhoid fever sanitation. The removal of contacts from houses was therefore discontinued and only the sick removed, while special attention was given to destroying all material about the patients, such as bedding, clothing, and disinfecting the room where the patient had lain and insisting that all household and kitchen utensils should be rendered sterile by boiling in water, and that all excreta and vomit from patient should be treated with a disinfecting solution and the water and food made sterile—the former by boiling and the latter by thorough cooking. The natives were advised against eating uncooked fruits and salads, and where a well or stream had furnished the water supply, the further use of water from same was forbidden, and in many instances wells were filled in and water supplied from the ice plant. When the sick were removed it was customary to allow one member of the family to accompany the patient to allay fear, and as far as possible the nurses and immediate attendants were selected from their own people.

The town was divided into six districts and a careful house-to-house inspection was made each day by a native inspector accompanied by a mounted soldier, whose duties were to report all cases of sickness. When a case was reported it was visited by a native physician or by a military surgeon. A quarantine of houses in which cholera appeared was maintained by native police and native soldiers in order to limit the spread of the infection. This was accomplished by preventing neighboring families from visiting and partaking of the infected food and water of the household. The guards were also used as a means of controlling any other cases that might become infected from the same source as the original case, or from the bowel contents or vomit of this case, and preventing them from fleeing to some other town or barrio and thus spreading the infection to uninfected localities.

Numbers of barrios became infected after this manner. The natives are great visitors, and it is a very common occurrence for them to go great distances to pay each other friendly calls when such journeys have no elements of business or commerce about them. Many, too, became alarmed at the restrictions imposed by the surgeons, not alone on travel, but on households as to character of food and water supply, and were inclined to flee to remote places where it was expected that such restrictions did not exist. Some, perhaps, of the most ignorant, were honestly impressed with the belief that the epidemic was something imposed upon them by the Americans. It became necessary to proceed slowly and carefully to explain as best we could the object of our ordinances and our sincere desire to assist them. This was accomplished by a series of public meetings, which were largely attended by the leading men, where the nature and source of the epidemic were carefully explained and the proper means pointed out to combat the disease. These measures were more clearly understood, perhaps, because of their previous experience with vaccination for smallpox that had taken place only a few months before during the time of reconcentration, when 30,000 natives were vaccinated in the town alone by the military surgeons and hospital corps, with the result that not a single death occurred in the entire province during the past year from smallpox, when every other year hundreds had died.

This argument was used to point out to them that the Americans had only their welfare in view in establishing quarantine and other restrictive measures. One very large public meeting was held in the court room of the fourth judicial district and was arranged for by Judge Linebarger, judge of the court of the first instance. Natives were invited to express themselves fully about the epidemic, and did so at length. It was learned from them that many doubted that it was true Asiatic cholera, as the mortality of the disease seemed so slight compared with the epidemic of 1882 and 1883, when as many succumbed in one day as have died here in the entire three months of duration of the epidemic. Many advanced the idea that it was the result of lack of proper and suitable quantity of food; but when we pointed to the Americans who had become infected and died and asked if they thought this infection the result of scarcity of food, they were, in part, at least, convinced that it could not be due to lack of food. The danger of the food and water supplies carrying the infection was pointed out to them, as also the best means of rendering them safe, and by this means we obtained, in part, at least, cooperation in our efforts to combat the disease. Especially valuable was a meeting held of the cabezas of the forty-eight barrios belonging to this town. The native presidente rendered valuable aid by sending out an order for each cabeza to report at the post hospital on a certain date. On that occasion every barrio of the town was represented by at least one, and in many cases by a number of delegates. They were urged to provide stations for boiling water in each barrio, to use for this purpose the large sugar kettles so much in evidence in all parts of the islands. They were urged to adopt ordinances compelling all natives to use this water under heavy penalty of neglect, and to avoid the use of all uncooked food, and especially to adopt some system for disposal of bowel excreta and under no conditions to permit its deposit in the vicinity of wells or streams. These directions were carefully explained by the native presidente in their own language, and they were in every instance asked if it was practicable to carry out the directions. When it was stated by anyone that it was not, owing to the lack of suitable facilities, the necessary assistance was rendered. Each cabeza was supplied with needed medicines and disinfectants; and they were informed that when it was necessary, if they would but make such necessity known, one of the surgeons would visit their barrios and give practical instructions in these sanitary measures. They were urged to keep their people at home, both to prevent their becoming infected at other places and their carrying the infection, and finally, each cabeza was told that if these measures were carried out, it was absolutely certain that the epidemic would soon be stamped out, and that he individually would be held responsible that they were carried out, and the result obtained would be evidence of his good faith, and where cholera still prevailed it would be proof that he was not doing his duty, and in that event the presidente of the town, to whom they were responsible for their positions, would be compelled to take summary action. This meeting bore good fruit, for from that time there was a gradual diminution of the cases until the epidemic ended.

At the important garrisoned town of Nueva Caceres, in South Camarines, we find the same contrast between American and native methods and results. Here the disease was probably introduced by a native sailor from a chartered transport arriving from Manila. The town proper, with a population of 23,000, showed only 182 cases and 120 deaths, while Magarao, a barrio 4 miles distant, with 6,000 inhabitants, had 293 cases and 249 deaths. The conscientious endeavor of the Americans to aid the stricken natives, to overcome their ignorance and prejudice, and enlist their cooperation, is again well exhibited. When the epidemic began, in the words of Capt. Shannon Richmond, assistant surgeon, U. S. Volunteers—

> cases developed rapidly during the next few days, the highest number recorded in the city of Nueva Caceres any one day being 19, on April 14, 1902, while the highest number of deaths was 12, on April 16, 1902. Thereafter the number of cases markedly diminished, there having been 159 cases and 106 deaths in Nueva Caceres during the first twenty days in April, while during the last ten days there were but 15 cases and 7 deaths. Even while the epidemic was at its worst the disease did not confine itself to one or two localities, but was scattered more or less over the entire town. Though four of the inhabitants in one small house were attacked within twenty-four hours, three of them dying, aside from the provincial prisoners there

were no other instances of more than two being attacked in the same house, although many were living together. Particularly after the adoption of the plan of immediately transferring to hospital those attacked and sending to isolation camp all who had been in contact with the sick, it was indeed rare that more than one case developed in one family. Of the more than 500 men, women, and children in the isolation camp, but 3 cases of cholera developed, 2 of them resulting fatally.

The following are among the measures taken to prevent spread, etc., of cholera: A strong cordon, consisting of municipal police and constabulary, was placed around the city, while a military guard patrolled the river front. No person was permitted to cross the cordon without a pass and very few passes were issued. That commerce might not be too greatly interfered with and that those living in the towns surrounding might not suffer for want of food—no rice being grown in this province and Nueva Caceres being the only port in this vicinity—the following instructions were given: Three stations were established where the transfer of supplies might be made, each of these being under the personal supervision of an American inspector (schoolteacher), one station being at the river landing, one on the road leading North and the third one on the road leading East. Supplies were to be brought to the cordon, where they were to be deposited, while the conductor was to withdraw a distance of 20 feet. The party on the other side of the cordon was then to advance and receive the goods. The hours of the transfer were from 8 to 11 a. m., and 2.30 to 5.30 p. m. daily.

All boats, of whatever description, were carefully inspected by a medical officer before those aboard were allowed to land, he being the first to board the boat.

The city was divided into districts, each being in charge of an American inspector, and he, accompanied by a native presidente and two policemen, started out early each morning and made a house-to-house inspection of his district, sending back one of his policemen with notice of the fact when he found any cases or deaths, while the other policeman remained on guard over the house. The most of these inspectors, about fifteen in number, were American school teachers, who volunteered for the work and who rendered invaluable assistance, working both day and night.

A board of prominent men was appointed for the purpose of raising a subscription fund for the relief of cholera patients and those dependent upon them for support, by which means $2,115 Mexican currency was collected, of which $1,000 were paid by the Chinese residents, $465 by Americans, $430 by Spaniards, and the balance, $220, by Filipinos. Most of this money was used for the construction of an isolation camp and for the purchase of food for those under surveillance there. The presidente municipal issued an order to the effect that all cases of illness, of whatever description, be reported at once, whereupon a medical officer visited the house and ascertained whether or not it was cholera. The bodies of all deceased were viewed, and if death was not the result of cholera a permit to bury the remains was given. The church was forbidden to hold services over the remains unless accompanied by a permit.

It having been found next to impossible to obtain fresh lime, all bodies of cholera patients, with the exception of two or three which were buried in fresh lime, were burned, the cremating being done generally at night, under the supervision of four discharged soldiers, who were employed as inspectors. A pit was dug into which was placed half a cord of wood, the body placed on this, covered with five gallons of coal oil, and within two hours would be entirely reduced to ashes.

During this period cases of cholera were being reported daily from many of the adjacent pueblos. As no official notice had been given of its existence in the town of Magarao, 4 miles distant from here, although many cases were reported from towns just beyond, an investigation was made on April 18, when it was discovered that there had been at least 49 deaths from the disease in Magarao during the previous eight days. The local presidente, who had misrepresented and concealed the facts, was suspended from office, and a man of intellect and force installed. Thanks to his strict observance of sanitary precautions and to the supervision and care exercised by First Lieut. H. A. Webber, assistant surgeon, U. S. Army, who visited Magarao daily, by April 27 and thereafter the average number of cases daily was but 3, although from April 10 to 26, inclusive, there had been 265 cases and 212 deaths—this in a town with a population of but 6,000. The number of cases there—the result wholly of neglect—was far greater than in any other town in the province, and the remarkably short time of seven days in which the epidemic was practically ended—there having been but 28 cases there from April 27 to May 31, some of these having come from near-by infected towns—is a notable example as to what, with proper sanitary conditions and precautions, can be done in the way of preventing Asiatic cholera.

Maj. Henry D. Thomason, surgeon, U. S. Volunteers, chief surgeon, Fourth Separate Brigade, reported from the same place June 14, 1902:

The following is a résumé of the general management of the epidemic: The directions contained in General Orders, No. 66, Headquarters, Division of the Philippines, provided that the inmates of a house containing a case of cholera should be promptly removed and kept in isolation at a separate point, except those required to attend to the needs of the sick. It was soon apparent, however, that such native attendants were infecting themselves and others, and the plan was early adopted of removing all natives who had been in contact with the sick, and none were permitted to remain in the infected house, but all were sent under guard to the established isolation camp, the sick case, if living, removed to the cholera hospital; if dead, the body was taken to the morgue in connection with the hospital, and the house immediately burned to the ground.

To this end a cholera hospital was established in Nueva Caceres in a building rented by the civil government and well adapted for the purpose. The hospital was placed under the command of First Lieut. H. A. Webber, assistant surgeon, U. S. Army, who had four hospital corps men assigned to him for duty.

In the opinion of the writer this method of compulsory and complete separation of the native sick from the well proved to be one of the most potent factors of controlling the disease. Certain it is that there was a continual and uniform increase in the number of new cases daily in Nueva Caceres until the establishment of this hospital, when an equally continual and uniform decline of the disease became apparent.

The bodies of all dead from the disease were burned at night, in an open field at safe distance from the city, the quartermaster's department furnishing the transportation for the removal of all bodies.

The isolation camp, located 2 miles from the city, consisted of several native houses, in addition to which the civil government erected a large nipa structure, 30 by 200 feet, for the accommodation of the inmates. This camp was practically a "reconcentrado" establishment. It was placed under the management of Hospital Steward Patrick Haughey, U. S. Army, who had three privates of the Hospital Corps under his direction. A separate hospital was established at this camp, equipped and managed by the Medical Department of the Army. This was in expectation that numerous cases would develop among those brought in from the various places of infection, but this expectation was not realized, as only 3 cases developed from this source, 2 of them proving fatal.

Rations procured by public subscription were issued to the inmates of the hspital. There were at one time as many as 500 inmates provided for in this inclosure, which was guarded by a cordon of native constabulary under an American officer of the organization.

The general plan of controlling the epidemic in Nueva Caceres served as a model for other infected towns in the province. The presidentes of all municipalities were directed by the civil governor to adopt and carry out similar measures, and, with a few exceptions, this general plan was observed and served everywhere a good purpose.

In addition to the work performed by the Medical Department of the Army in Nueva Caceres, medical officers, accompanied by men of the Hospital Corps, were sent to various towns and barrios in the province to assist the municipal authorities in the organization of local boards of health and efficient means of managing the sanitation. They administered to the sick and directed the proper disposition of discharges, and supervised the disposal of bodies. Whenever a rumor that cholera existed in any portion of the brigade territory was received from whatsoever source, a medical officer and hospital corps men were dispatched to the scene for investigation. Later, when more medical officers were available, some of these were assigned to prolonged duty in the larger towns and assumed charge of the hospitals at these places.

During the prevalence of the epidemic at Nueva Caceres, the ice plant of the Medical Department, under the control of the commanding officer of the brigade hospital, was kept in constant operation in order to continually supply distilled water, this supply being a gratuitous daily issue to natives and others. The water was conveyed in a pipe to a convenient point and all natives were directed, and in many instances forced by the municipal authorities, to use this water only. As a result many hundreds of families and other persons availed themselves daily of this means of securing sterile water, and this is believed to have been the means of saving many lives, at the same time doing much toward prevention and against the spread of greater infection in the city.

At the time of the outbreak a normal school for native teachers was in session in Nueva Caceres. About fifty of these natives were in attendance under instruction of a large number of American teachers, brought in during the regular vacation from their permanent assignments throughout the province.

Upon invitation of the deputy division superintendent of public instruction, the writer addressed this gathering of American and native teachers in relation to sanitary matters in the Philippines, with special reference to the cholera situation.

All of the male teachers volunteered their services to the board of health and the work of conducting the normal school was left with the American women teachers. These gentlemen were assigned to duty as house-to-house sanitary inspectors. To each was apportioned a city district, and the services of these teachers were invaluable in securing and maintaining a marked improvement in sanitation, general and personal, as well as reporting to the authorities all cases of illness discovered, for investigation by medical officers. The services of Chaplain Dickson were especially valuable, not only in Nueva Caceres, but in many other towns within the province which he visited, and in which he gave practical instructions, translated into Spanish and Bicol, to large audiences of natives, on the origin and nature of cholera, methods of its prevention, and management. Through him it was discovered that a large number of native "practicantes" (doctors) were teaching the people to sterilize water by heating a piece of iron or a stone very hot and then dropping the same into a receptacle containing water. By these means the people were given to understand that the water was rendered harmless for drinking purposes.

The chaplain in his instructions practically demonstrated what boiling water was, producing it before them to aid their comprehension of the lesson. He also gave personal attention and direction in the proper cremation of bodies. His work in various capacities everywhere during the epidemic was of the highest importance, and the results obtained were most gratifying.

The success attained in protecting the lives of United States troops, surrounded as they were with the disease, was very marked. It is hardly too much to say that nearly every case of cholera in an American soldier resulted from a willful or careless violation of standing orders, and could have been prevented had the man himself taken the trouble to carry out precautions, with which he must have been thoroughly acquainted. In a small proportion of cases the disease may have been unavoidable, and even acquired while actually engaged in the work of sanitation and quarantine among the natives, but by far the larger number has been traced to unauthorized visiting of native huts or eating and drinking forbidden articles. The immunity enjoyed by troops seems to have been directly proportionate to the strictness of the discipline maintained. Where violation of sanitary regulations was promptly followed by trial by summary court and punishment, the best results were obtained. There was, of course, some difference noted in the energy and good judgment displayed by post commanders and medical officers. Here and there occurred a failure to promptly grasp the situation or a lack of force in grappling with it, although, as a rule, both line and staff officers worked most faithfully and efficiently.

In a most able and interesting report, dated August 19, 1902, Maj. Charles E. Woodruff, surgeon, U. S. Army, chief surgeon, Third Separate Brigade, writes:

As there are but two ways in which the infection can be carried into a new field, it is found that whenever the first case can be traced it is either a new arrival infected elsewhere or he has eaten infected moist foods which have been carried into the new districts. The latter method is rare, and is best shown at Biñan, where a native cook under a pass signed by the Manila board of health smuggled into Biñan, Laguna, under the name of coal oil, foods which he used at a fiesta, and to this fiesta are directly traceable the first 80 cases in the town, the cook dying a few hours after arrival, himself probably infected in Manila from the same source which infected the foods. In every other authentic instance there is direct proof that there was a newcomer who was infected prior to arrival and was taken sick shortly afterwards, often the same day.

The period of incubation is so short that it makes this evidence stand out with startling distinctness, for as a rule these travelers are sick when they arrive. For instance, the first cases at Dasmarinas, Cavite, June 5, were members of the constabulary who had spent June 1 at the barrio of Paliparan, 8 miles away, where cholera was present. The first case at San Pablo, Laguna, was a native who for three days visited Santa Cruz, where it had been epidemic for nearly two months, and who was taken sick twelve hours after his return and died thirteen hours later.

This being a territory (Laguna and Batangas) under military control, with closed ports, it has naturally been suggested that infected soldiers carried the disease into it and started the epidemic, particularly as the first cases to which public attention was given were soldiers transferred from the Ninth to the Eighth Infantry and who died at or near Santa Cruz shortly after their arrival from Manila. This has been definitely disproved by the investigations of Major Thomason, surgeon, U. S. Volunteers, and First Lieut. James M. Phalen, assistant surgeon, U. S. Army. Their report leaves no reasonable doubt that clandestine arrivals among the natives had introduced the infection and that they were dying of the disease for fully a month before it was more than suspected. Indeed, five of the first six cases were not among the Ninth Infantry arrivals at all, but were men who were at or near Santa Cruz for some time in the Eighth Infantry. The Ninth Infantry arrivals did not show symptoms until the fourth or fifth day after arrival, and as the majority of all cases have a less period of incubation, there can be no doubt of their infection after arrival.

After the infection has been introduced into a new place its spread in that place is invariably by the water or food. Cold cooked foods are splendid culture media and if flies or dirty hands deposit the vibrios thereon or they are moistened with infected water the development of the germs in this climate is tremendously rapid, and in a few hours the food contains enough germs to be fatal. A few germs can undoubtedly be disposed of by a healthy stomach, but not such myriads as must exist on foods infected for over eight hours. While all this is theoretically true and has been definitely proved to be the source of so many cases in Manila, where we know the water is uninfected, yet, excepting one case, we have nothing in the provinces but surmises and in every one of these cases it is known that there was a possibility that infected water may have been taken at the same time. This single exception is the cook of Company I, Eighth Infantry, who died of cholera May 29 at Majayjay, Laguna. He had been in the habit of eating pieces of raw meat, and as the latter came through a cholera-infected country, in boats on which natives died of cholera, it might have been infected. It would be conclusive were it not for the fact that cholera had existed in Majayjay among the natives for twelve days, whence he might have been infected. Three cases in the prison at Santa Cruz were believed to have been infected by food carried in by natives.

Raw vegetables like cabbage, lettuce, and celery are the most dangerous, for they are often spread over with human manure and were the undoubted means of introducing cholera into Manila from China, and though we have no such proof in the provinces where this process is not the rule, yet it is possible that vegetables are responsible for some spread, as they may have been washed in infected water. Fruits seem harmless unless eaten in excessive amounts, producing a fermenting mass in the stomach, offering a splendid culture medium for the multiplication of a few germs accidentally present and which would otherwise perish. The subsequent enteritis gives the germ an entrance into the mucous membrane. In only one case, at Lipa, is there a suggestion of infected fruit, and here several of the first cases had eaten of the same pineapple. Whenever cases seem to be due to fruit we can not exclude the almost certain fact that infected water was taken also.

The ease with which the germ is killed by heat, drying, and sunlight also shows that the chief means of spread must be by moist germs kept from sunlight and therefore by drinking water infected by bowel discharges. This is the experience in the province so often as to be practically the only way of spreading the disease locally. It is best shown by the town of Lucsuhin, on a mountainous peninsula 10 miles from Balayan, Batangas. Here the people use water from a clear, shallow mountain stream running through the town. The first cases were followed by a tremendous epidemic, which killed nearly 25 per cent of the population of 3,000, and which ceased after heavy and prolonged rains swept the stream bed clear. Where there are many wells in a town there is never such a widespread epidemic as this. It is not likely that every well should become infected at the same time. Hence cases are sporadic and in a station (San Fernando, Pampanga) in the Second Brigade it was clearly shown that the widely scattered early cases in the town all took water from a popular well, which could have been easily infected from a case in the adjoining house.

The first cases at Lipa occurred in shacks scattered along a stream running through this town. Within forty-eight hours the infection of the water supply, including the streams, wells, and spring, seemed general, as no portion of the town was spared. The better class of Filipinos, who use rain water collected from their tin roofs, have so far escaped.

At San Pablo the second case (fatal) developed forty-one hours after the first and was a Chinese laundryman who had drank unsterilized water from a ditch flowing just in rear of the building occupied by the first case, and this ditch was probably used as a sewer and received the bowel contents of the first case.

One of the best examples is at Balayan, Batangas, where the extensive epidemic was confined almost exclusively to people in a part of the town using river water infected by the first case. Natives using spring water escaped.

While this is undoubtedly the main method of infection, it is to be conceded that the extremely filthy habits of natives make it possible for them to infect anything and everything, and in many cases render it impossible to determine the channel of conveyance.

Infection by flies has been suggested at Lipa, where one company under an inexperienced officer had eleven deaths, while another company with an older experienced officer escaped. The former was not quartered so well, and it is said that from the location of the latrine there was more chance of flies carrying the infection. As the dry-earth system was used, as no cooked food is ever kept in barracks any length of time, and as many of the cases confessed to having drank water in native houses, it is safe to say that there is no reliable evidence that flies are responsible for any infection among troops.

Infection in hospital from other cases has been suggested on account of three cases at San Pablo in men recently sick in hospital. The report of the surgeon shows conclusively that these men with the carelessness characteristic of negroes had eaten in native houses, one while still on sick report and the others immediately after their return to duty. Direct infection from the patient is not possible except by swallowing his bowel movements, and the experience so far is unanimous that it is like typhoid—very difficult for nurses and attendants to acquire if the ordinary precautions are taken. There is practically no danger in treating cholera in the hospital, though of course a separate hospital is always desirable, as it keeps all infection from the main hospital, where asepsis is better than disinfection after infection.

A feature of this disease is the extreme difficulty of eliciting truthful replies from the sufferer. This has been noted as universal in natives and was thought to be a race characteristic. It has been practically impossible to get any information as to the source of infection from the native himself. He will not even give the least information as to his home or employment. The same feature, though to a less degree, has been noted in white men, who have no reason whatever for concealment of any fact. Prevarication seems to be a symptom and indicative of an altered mental tone due to sluggish cerebral circulation. After the withdrawal of so much fluid from the body the blood has completely changed its appearance and composition, being a dark, thick mass, incapable of carrying oxygen to the brain, and without this normal thoughts are impossible. It is generally stated in all classical descriptions of cholera that the patient is rarely delirious, but may be clear-headed to the last, omitting, of course, the coma toward the end and the febrile delirium in the secondary or typhoid condition. As clear-headedness is evidently impossible, the condition is one of more or less apathy—cessation of thought, instead of delirium. The mistake evidently arose from the fact that there is rarely a toxemic delirium as in typhoid or pneumonia.

The point to be emphasized is this: For the purposes of this investigation it has been found difficult, and in some cases impossible, to induce the soldier to confess where he had been eating and drinking. This symptom has handicapped investigations as to sources of infection in the provinces, but there is every evidence of the truth of the following conclusion as to soldiers—every case (with few exceptions mentioned below) is due to eating and drinking away from barracks, and in the vast majority of the cases it is the fault of the drinking water. If soldiers had stuck to the company kitchen food and drink, the 88 who died would have escaped. An undoubted source of infection has been in the houses of native prostitutes, but it is not susceptible of the least proof, as it is never admitted. This can not be prevented short of putting every company in quarantine under guard except while on duty. This was ordered as a last resort at San Pablo, and successfully, but it is not practical as a permanent thing when there is but little cholera in a town, and hence a few cases are inevitable.

Finally, the familiarity with the disease and the ease with which our simple precautions protect has undoubtedly bred a certain contempt for it and led to a false sense of security. As an epidemic proceeds there will be lapses by some men, as for example, the last three cases reported, one each at Calapan, Bay, and Santa Cruz. In no other way can we explain some of the six deaths in the hospital corps, the very men who know the most about the needed precautions. One of these (at

Calamba) was known to drink in a saloon in disobedience of orders. One was an acting hospital steward, a graduate in medicine, who so far forgot himself as to eat in a Chinese restaurant while casually at Batangas. As before stated, we have no data that any nurses or attendants have contracted the disease directly from the infected person, excepting Capt. H. R. Lemen, assistant surgeon, U. S. Volunteers, who had been making numerous post-mortem examinations and was much reduced in health.

At San Pablo some soldiers infected had complained of the mess, and as it is extremely difficult to improve the table fare in present conditions, and as some companies fare very badly, there is great temptation for soldiers to go elsewhere for food.

The interpretation that field conditions exist prevents issue of coal oil or lamps, and this drives the soldiers from the gloomy barracks in the evenings to the pleasanter saloons and other resorts, and throws more temptation in their way if they are not closely quarantined, and close confinement can not be kept up indefinitely on account of its depressing effect upon mental and physical health, so that occasional cases may occur as long as the epidemic lasts.

On account of rumors of increase of cholera since the military surgeons have stopped work, it was deemed necessary to issue a warning as to the increased dangers and necessity for continued vigilance. The soldiers had evidently relaxed somewhat, as occasional cases were reported up to August 24.

Of the 8,000 officers and soldiers who have served in this brigade up to August 17 while cholera was present, only 90 have died of it, 2 officers, 59 white, 14 colored soldiers and 15 native scouts, about 11.2 per thousand. When we consider that they have been surrounded by it, and that there were innumerable ways in which it might be contracted, the result is not bad, and speaks eloquently of the faithful execution on the whole of the sanitary suggestions of the medical officers. Formerly, under like conditions in India, before medical officers were able to suggest remedies, the regiments were well-nigh destroyed.

Of the 990,000 natives in the same territory, we have reports up to August 17 of 8,534 deaths, a rate of 8.6 per thousand, but from the large number of places from which we get no reports—at least one-fourth of the territory—and the known fact that a large number of deaths are concealed at places from which a few or none are reported, it is safe to say that there have been 25,000 deaths, or 25 per thousand; a fair proof of the success of town sanitation, in spite of native filth and obstruction, for in former epidemics the mortality was enormous. Nevertheless, not one of the 90 soldiers should have died and in the most of these cases we are certain that the cause was the careless or willful disobedience of the soldier. In the presence of all dangers it is the rule for a certain percentage of young men to die of their own foolish acts in spite of excellent discipline. Deducting these, there remain some for which the officers are responsible from inattention to details of division orders. This is notoriously the case at San Pablo. How far the neglect to boil water at Pagsanjan can be considered responsible for half the mortality of the Eighth Infantry is difficult to say, but, from the known fact that by boiling the water—even of spring waters, which are sometimes fatally infected—we have greatly reduced the mortality from all intestinal diseases, it is safe to say that at Pagsanjan there was a serious if not fatal disobedience of Division General Orders, No. 58, of March 23, 1902.

At Santa Cruz, Laguna, no board of health was established until the arrival of Major Brewer, representing the insular board of health, after the epidemic was severe.

Department telegraphic orders of May 14, to have detachments en route carefully supervised by officers or noncommissioned officers to see that each man observes proper precautions, was not observed by the Eighteenth Company of Native Scouts en route from Tiaon, Tayabas, to Batangas, province of Batangas. They drank unboiled water from a small stream, draining barrios of Lipa, and drank from native houses along the route. As a result there were deaths of the commanding officer, a hospital corps private, 2 white teamsters, and 5 scouts.

The following quotation from Major Thomason's report shows a very serious violation of these orders in the case of recruits sent from Manila to San Pablo: "It is stated that this party of recruits, 32 in number, were sent up from Manila on a casco, and that they were supplied with neither water nor rations before starting. By some mistake of the captain of the boat they were partially unloaded at Pasig, and here some of the number obtained food from the natives. The others had nothing to eat until they arrived at Bay, though they had started from the Cuartel de Espana early in the morning before getting breakfast. They obtained some water from the launch which was towing the casco, but many of them drank from the Pasig River and from the Laguna de Bay. Seventeen of these recruits went to San Pablo and two of them were taken sick with cholera the same day, June 15, eight and ten hours, respectively, after their arrival in San Pablo, and both died the same day."

The occasional futility of all precautions is best shown by the report of the surgeon at Indan upon a case developing in a detachment traveling from Indan to Naic, Cavite. "The soldiers were under the immediate supervision of a noncommissioned officer with explicit instructions to guard the soldiers against cholera from infected food and drink en route. I was present when the detachment left station and saw personally that each soldier was supplied with a canteen of sterilized water." In a hard march in the tropics perspiration is so excessive that it takes but a half hour to transfer the whole contents of a canteen to the skin via the usual channels; hence sterile water should be carried along, but as this is often impracticable a few deaths are unavoidable, as the thirsty men will drink. This is shown in the enormous death rate of teamsters—34.5 per thousand. As copious drinking is a means of avoiding sunstroke there is really a danger of death from heat on one side or cholera on the other. As sterile water is the main reliance, it is evident that we have made a mistake in not insisting upon a special order that the first consideration in moving troops in cholera territory shall be to reserve transportation for sufficient water to last the command until it reaches a place where a renewal of the supply is possible. It is just to call attention again to the fact that this failure to supply sterile water to the soldiers of the Ninth Infantry en route from Manila to join the Eighth Infantry at Santa Cruz was not the cause of the outbreak at Pagsanjan. They were seen drinking Pasig River water, and this has repeatedly been affirmed to have been the source of their infection, but it is not correct. They were infected after arrival at Santa Cruz and Pagsanjan.

It has not been possible to determine whether the numerous details of department telegraphic order of June 3 were complied with, but from the best information available it is shown that there has been an earnest effort along these lines as a rule. There are variations in the thoroughness with which they have been enforced, but nothing calling for any further comment except as elsewhere stated. The more a pueblo is spread out and the more barrios it has, the greater has been the difficulty of doing anything for the natives. It is not likely that the spread of the epidemic could have been markedly lessened except by quarantine guards on all roads, requiring 25,000 troops and four times the number of medical officers, who would then be overworked.

The relative susceptibility of the various elements of the Army and natives, by reason of above-mentioned facts is clearly brought out by the rates per thousand at which they died up to August 17, the figures being only approximate:

	Number of deaths.	Approximate rate per 1,000 present.
Officers	2	9.5
White soldiers	59	10.0
Colored soldiers	14	23.0
Native soldiers	15	8.8
Quartermaster employees	19	34.5
Natives	8,534 to 25,000	8.6 to 25.0

The village death rate of course varies from nearly nothing up to 250 per thousand, as at Lucsuhin and here, were it not for the providential rains it would have been nearly 1,000 per thousand, or total extinction, as occurred in many villages in 1882. The colored death rate—nearly equal to the highest estimated native rate—is very suggestive and in marked contrast to the lowest rate—that of the native scouts, who have shown themselves so amenable to discipline.

It is suggestive that at Lipa and San Pablo, where so many died, there were no summary court proceedings instituted against any soldier, while at Calamba, where all the cavalry command escaped, "the post commander has maintained a high standard of discipline and has punished any violation of rules with as great severity as possible. He has had ten or twelve men brought before a summary court for violation of rules concerning cholera," and at Biñan, one of the worst infected towns on Laguna, where only three soldiers died (all of whom, by the way, were in active cholera work), orders were issued "covering all essential points in prophylaxis, but these orders were rigidly enforced."

CONCLUSIONS.

Quarantine.—Since it can be accepted as proved that 95 per cent of cases of cholera is carried into new territory in the bowels of infected travelers, the most essential item in managing an epidemic is a quarantine, and the closer this approaches nonintercourse the better. Of course an absolute isolation is not possible, as no place is so self-sustaining that it can dispense with trade in foods and other necessities. But this trade would be harmless if the merchandise were dry and all persons were quarantined five days at point of arrival. There being no known instance of the period of incubation being longer than five days, this would catch all infection, and the accompanying reports contain instances of an incipient epidemic being wholly averted by promptly isolating the first case and disinfecting the contaminated area. Quarantine at point of departure is evidently suited for marine travel only.

Interference with commerce of necessity causes great loss, and the merchants invariably protest to such a degree as to bring political pressure and overturn the necessary system, and this has no doubt happened here as it does in the United States. The loss of life is considered a necessary concomitant of trade in this condition as in every other, and must be accepted as inevitable.

The Malay is very human, and in infected areas is just as much opposed to quarantine as Americans at home, and he will violate it if he can. In addition, it seems impossible for him to comprehend the situation and as a rule he looks upon the restrictions as unnecessary hardships. His life is one long struggle for existence and defense against competitors, so that his experience teaches him that what is for the benefit of others is generally to his own disadvantage. Hence, the desire to avoid restrictions of all laws. Totally unnecessary travel is indulged in clandestinely, and the quarantine lines have been broken through, carrying infection, as at Lipa. A distinct track of cholera also could be traced along a back trail from Lipa to San Jose. The guards themselves are unreliable, being ignorant natives. These and many other conditions interfere with quarantine, and many people argue that as the disease will spread anyhow, there is no need of quarantine at all. This is fallacious. Because a human invention is not perfect is no reason for abolishing it. If it were, then all health regulations would be abolished, and even all laws. The fact is the reverse, although very imperfect, a quarantine is beneficial and certainly checks the spread of the disease, and we desire only to hold it in check for the few months it takes to destroy the virulence of the germ. Already the adverse climate conditions, different from its home in India, are so weakening it that a much larger percentage of infected people are recovering than at first. Hence, the medical officers have been doing good work in insisting upon as rigid a quarantine as possible and have been strongly supported in their efforts by the troops.

Unfortunately these provinces (Laguna and Batangas) are particularly dependent upon outside food supplies, as it was just recently a military necessity to destroy much of the food supplies stored by the enemy in the mountains, and much more laxity was necessary than elsewhere. Indeed, at one place quarantine was forbidden by local orders, though this may have followed from the failure of the medical department to state the benefits of a quarantine in a clear and forcible manner. It was considered necessary to remove restrictions from the people so as to remedy the ill effect of war and content them to settle to civil conditions, and the extra deaths due to lack of quarantine must be looked upon as a political necessity and one of the penalties of war. In other places the quarantine did good in proportion to its perfection.

The best illustration of these facts is seen in the comparison of Bay and San Pablo. At the latter, an inland station, a quarantine was recommended, but "was not thought feasible by the post commander on account of natives being compelled to go to Bay from all sections of the country for the purpose of procuring rice." This town was infected May 21 from Santa Cruz and had 571 deaths to August 9. Bay, nearly as large a place and most unfavorably situated as to sanitation, was carefully quarantined, although it is the largest shipping point on Laguna de Bay, having an average of 20 to 25 cases daily since May 1, as many as 60 persons being in detention camp at one time, and yet it had but 54 deaths to August 10. Much of this excellent result of Capt. H. W. Eliot's work is no doubt due to the care with which he searched for and destroyed forbidden articles, like tomatoes, and the careful searching for and isolation of the sick and disinfection of their houses, but it can not be denied that his detention camp lessened the number of cases he had to search for and isolate, and that there were, therefore, fewer places in which soldiers could be infected. At San Pablo the places where infection was possible were exceedingly numerous.

At Calamba, also, a rigid quarantine kept out the disease until May 12, when a case occurred on a casco and a woman in the town was stricken May 13. Then no other case occurred until May 27, when an infected native came in town from the Cavite line. Other towns on Laguna got the disease early in April, only two to three weeks after its arrival in Manila. Every check like this to the spread is a distinct advantage, while we must wait for the germ to lose virulence. Detention camps are, therefore, essentials of a land quarantine.

The essentials of managing a cholera epidemic.—The main thing is to institute a system of constant search for the sick to isolate them, with the sole purpose of destroying their discharges and disinfecting the premises. Burning of houses is not necessary, nor is burning the body nor the use of disinfectants in the grave—cemeteries never spread infection—deep burial killing pathogenic microbes. It is immaterial whether isolation is in the home or in the hospital, as far as managing the epidemic is concerned. The advantages of the hospital are the vastly increased chances of recovery from better treatment possible therein. For instance, at the Biñan Cholera Hospital, under the most admirable system inaugurated by First Lieut. B. J. Edger, Jr., assistant surgeon, U. S. Army, the mortality was less than 40 per cent, while outside it was nearly 80 per cent. Natives, seeing the good results, voluntarily came there, and its fame spread to the adjoining province of Cavite, from which people came to enjoy its benefits.

Detention camps for contacts are not essential, as we have little or no proof that contact infects. Those living in the same house must be quarantined to secure subsequent cases which have been infected from the same source as the first. If they observe proper precautions they can safely be left at home, but as they will rarely do this, and as the native guards can not be trusted, it is merely a matter of humanity to remove them to a detention camp. As they detest the interference with personal liberty, they conceal cases to avoid confinement, and the camps for contacts therefore do more harm than good. This was fully tested at Biñan.

Removal of sources of infection.—As before explained, it is generally impossible to trace the channel and find the source, and it is necessary to act on the general principle that the water is at fault. All suspicious wells which can be easily infected are to be closed, but the main reliance is in boiled water. The natives are not capable of understanding its necessity and will not use it universally; nevertheless, public boiling stations where it is freely supplied do good. For instance, there is no reason to doubt that the establishment of these stations in Santa Cruz was a powerful factor in stamping out the epidemic. Where a well could be isolated and kept from infection and guarded there was less virulence to the epidemic, and its virulence increased in proportion to the ease with which the common water supply could be infected.

Prevention of sale of fruits and vegetables to be used raw and protection of cooked foods from contamination, though less important, are necessary, as they prevent a few sporadic cases, and to this extent limit the foci for spread of new extensions of the epidemic.

Of course the only thing to do with thinking people is to give them individual instructions, so that every man can protect himself. Much was expected from such instructions to natives, through presidentes, cabezas, priests, and school teachers. Sometimes it seemed to be effective, as at Biñan, but generally there was disheartening failure from the inability of the natives to understand such abstruse matters. To their mystic minds the disease is carried by the air, and even the most intelligent are so fatalistic that they believe if their time has come to die it is futile to try to ward it off.

The habits of all savages, and these Malays are savages under control, are so filthy as to defy description, and it is not possible to put any town in a permanently satisfactory state. Sanitation, then, as demanded by telegraphic orders of June 4, though very desirable, has been found impracticable. Habits ingrained for thousands of years can not be changed in a day, and the minute we let up on our compulsory measures the natives slipped back into the old easy rut of filthy habits, and cholera increased, as at Santa Cruz, Laguna. Proper sanitation in all its details is merely an aid to carrying out the above four rules for managing an epidemic. The fewer the rules to natives the better able they are to comprehend.

The conclusion come to has been that the nearer the surgeon worked along the above lines, the more successful he was and the further he departed from them the worse were his results. An example of excellent results is at Lilio and Nagcarlang, and at San Juan de Boc Boc, one of the worst infected towns, losing one-eighth of its population, the command was never infected. The saving of life here by close confinement of soldiers, among other things, is in marked contrast to the loss of life through the liberties of the soldiers at San Pablo under identical conditions.

Cholera occurred in two or three instances on transports in the harbor at Manila and on board smaller inter-island vessels operated by the Quartermaster's Department. On August 26, 1902, the U. S. Army transport *Sherman* sailed from Manila for San Francisco via Nagasaki and went into quarantine at Mariveles the same evening. On the next morning a first-class passenger, a lady, became ill, and on the 28th a diagnosis of Asiatic cholera was made. The case terminated fatally on the 29th. After quarantining those in immediate contact on shore at Mariveles and disinfecting the ship, the voyage was resumed on

September 4. There were about 100 patients suffering from various complaints in an improvised hospital on the first troop deck, and between September 7 and 9, inclusive, 4 cases of cholera developed, with 2 deaths. On the afternoon of September 9 the *Sherman* arrived at Nagasaki. All contacts, as well as the two surviving cholera patients, were landed at the quarantine station, where an emergency hospital was established and maintained ten days, Contract Surgs. William C. Mabry and Henry C. Gemmill in charge. In a very complete report rendered on their return to the United States, these gentlemen say in part:

> The fact that nine days elapsed between the termination of the first case of cholera and the outbreak on the first troop deck, the distance, with a deck intervening, and the entirely separate accommodations as to food and water, render it impossible to consider the first case as the focus of infection.
>
> The fact that no further cases occurred among the first-class passengers or those occupying cabins on the saloon deck still further strengthens this conviction. It is our opinion that an undiagnosed, mild case of cholera developed in the hospital. This may have been one of the cases which ultimately died or developed unmistakable symptoms or the original case may have completely recovered, while the infective agent coming in contact with a weaker resistance produced the virulent cases mentioned above.
>
> The transport arrived at Nagasaki, Japan, at 6 p. m., September 9, and was promptly boarded by the Japanese quarantine authorities, who at once made arrangements for the transfer of the two remaining of the cholera patients to the cholera hospital at the quarantine station. This transfer was accomplished about 8.30 p. m. Upon the suggestion of Captain Jackson, assistant surgeon, U. S. Volunteers, arrangements were made to quarter all contacts and suspects on shore at the quarantine station, the Japanese officials readily agreeing.
>
> Early on the morning of the 10th of September Contract Surg. William C. Mabry and Harry C. Gemmill, with two acting hospital stewards, Hospital Corps, U. S. Army, 10 privates of the Hospital Corps, and 96 patients, having the necessary supplies and rations for five days, were landed at Megami, Nagasaki, Japan, with orders to establish and maintain an emergency quarantine hospital.
>
> All the baggage and property of the detachment, including kitchen utensils and dishes, were thoroughly disinfected by steam or dry heat, articles destructible by these processes being subjected to carbolic acid sprays. Officers and men were given a hot water bath and the clothing worn subjected to fumigation.
>
> Immediately after the personal disinfection was completed quarters were assigned and details were made for the diet and mess kitchens, wash houses, wards, and office, and these buildings carefully cleaned and prepared for occupancy. The Japanese authorities very kindly furnished some coolies to assist in getting stores up to the kitchen, and dinner was ready at 1 o'clock.
>
> After an inventory of subsistence stores on hand had been taken, the following guide in the preparation of diets and serving of same was prepared:
>
> 1. Liquid diets will be served at 6.30 a. m., 9.30 a. m., 11.30 a. m., 3 p. m., and 5.30 p. m. The following articles are available: Canned soups, stock soups, beef tea, condensed milk, Highland cream, eggnog, cocoa, tea, coffee, and malted milk.
> 2. Special diets: In addition to the articles enumerated above, crackers, butter, soft boiled or poached eggs, oatmeal, arrowroot, jellies, and fruit will form articles of special diet.
> 3. Light diets: In addition to the articles already mentioned, bread, cracked wheat, potatoes, onions, tender steak, and chicken form articles of light diet.
> 4. Full diets: Fresh beef and mutton or beef stew or bacon or chicken will form the meat components; potatoes, onions, baked beans, string beans, pease, prunes, bread and butter, jellies, canned fruits, tea, and coffee will form the basis of selection of full diets.
>
> Post Commissary Sergt. Charles Cone, U. S. Army, a convalescent patient, was placed in charge of the kitchen and prepared the daily menus, which were submitted to the attending surgeon for approval. The following is a specimen:
>
> *Diet list, September 15, 1902.*
>
> *Liquid diet.*—Breakfast: Chocolate or coffee. 9.30 a. m.: Malted milk. Dinner: Soup, vegetable. 3.30 p. m.: Highland cream. Supper: Beef tea.
>
> *Special diet.*—Eggs, crackers, and butter.

Light diet.—Breakfast: Oatmeal, crackers and butter, eggs and coffee. Dinner: Soup, mashed potatoes, bread and butter. Supper: Creamed potatoes, bread and butter, tea.

Full diet.—Breakfast: Oatmeal, beef a la mode, bread, butter, and coffee. Dinner: Soup, boiled beef, corn, bread and butter, tapioca pudding. Supper: Vegetable stew, beans, bread and butter, jam.

An office in one of the larger buildings of the station was assigned by the Japanese authorities and sufficient furniture was soon in place to make it a confortable working room.

By 4 p. m., on the 10th of September, the hospital was completely organized, no ill effects on account of excitement or exertion incident to transfer having been recorded, the total number of United States officers, soldiers, and civilians at the hospital on shore being 110 men, of whom 96 were patients from the improvised hospital on board the *Sherman.*

As the entire personnel of the emergency hospital thus established had been brought into more or less intimate contact with Asiatic cholera, the practical means of prophylaxis were considered of primary importance in issuing rules and regulations for the internal economy of the hospital. The methods adopted included:

Attention to water supply.—One hospital corps man was detailed to procure the water and cleanse the coolers. All men were compelled to drink only from the coolers in the hospital, and each man was furnished with an individual drinking cup. The water from the kitchen was obtained from another well, also by a specially instructed detail, and the water from both these wells was examined daily by a Japanese chemist.

Attention to food supply.—A careful inspection of the diets served was instituted, and all men of the cooking and serving force carefully instructed as to the necessary precautions. A table was so placed as to project on either side of a fence which separated the kitchen from the hospital building occupied by the patients. On the tables the diets were served, the fence effectually preventing contact of the patients with the kitchen force.

Sterilization of dishes.—The dishes were kept in the wash house in covered baskets. At meal time the men able to go to tables received their dishes direct from the hot water where they had been previously heated to the boiling point. Upon the completion of the meal the dishes were returned to the wash house, cleaned in hot water and returned to the baskets. The same precautions were taken with the dishes of the bed patients, separate baskets being used for these dishes. The dishes used by patients in the isolation ward were kept entirely separate and were sterilized in the same manner. One hospital corps private with two assistants had sole charge of this work.

Disinfection of hands and shoes.—A pail of 5 per cent carbolic-acid solution was placed at each entrance to the hospital wards, kitchen and office, and the men encouraged to wash their hands frequently; this rule being insisted upon before and after meals. A mat at each entrance was kept thoroughly saturated with 5 per cent carbolic acid and the men instructed to wipe their shoes upon entering and leaving the hospital and other buildings. A dry mat was placed just within each door.

Personal cleanliness.—All patients and attendants were compelled to take a hot bath every other day, except those who were too ill to go to the bath house, who were given sponge baths in the wards. Sinks reserved for the purpose in the wash house gave ample facilities for the washing of hands and clothing, towels, etc.

Policing.—The kitchen force was made responsible for the cleanliness of the interior of the kitchen and of their own quarters. Suitable receptacles with covers were provided and placed at the entrance to the kitchen to receive refuse. These were emptied twice daily by a detail of three men from the patients able to do such work. The contents were subsequently cremated by the Japanese employees.

The closets were thoroughly policed by a special detail twice daily, the cleaning of the cisterns which received the excreta being performed by the Japanese. The wash-house force was responsible for the cleanliness of that place. In the wards and grounds all available men were turned out for police duty twice daily, after which the hospital attendants mopped the floors of the hospital with 5 per cent carbolic acid solution.

Classification of cases and isolation of suspects.—The patients were divided as soon as possible in the following classes:

1. Convalescents. These occupied wards 1 to 6, inclusive.
2. Subacute and chronic cases with mild symptoms. These occupied wards 7 and 8.
3. Subacute and chronic cases with serious symptoms. These occupied wards 9 and 10.
4. Ward 12 was used exclusively as an isolation ward for cholera suspects, and was in charge of a special attendant.

5. Ward 11 was used as quarters for hospital corps men on duty in the wards.

Upon the occurrence of a case simulating Asiatic cholera in any ward, the patient was at once transferred with all his belongings to ward 12, and the ward in which the case occurred was thoroughly disinfected, the remaining patients in the ward being bathed and their property fumigated.

Prophylactic injections of cholera vaccine.—Eighty-five men in all received prophylactic injections of 1 gram each, and careful observation of the effects were made.

Exercise and bounds.—Ample facilities for outdoor exercise were afforded by the grounds about the hospital, and by the walks on the hillsides above. Bounds were described by verbal orders conformably to the wishes of the Japanese authorities, and were carefully observed by the men.

The office force consisted of two acting hospital stewards, Hospital Corps, U. S. Army—one regularly detailed and one a convalescent patient—one clerk, and one orderly. These, with the acting hospital steward in charge of the wards, slept in the office, which was a separate building from the hospital, but within sight of it.

All men were furnished, as were the patients, with a Japanese mat and mosquito bar and with a blanket and sheet from the supplies provided by the transport. The surgeons in charge were given a room in the detention house of the station well furnished and very comfortable. They messed with the men.

Inspections.—The executive officer was present at two roll calls daily, at which times such verbal orders and instructions as became necessary were published, and after which a sanitary inspection was made by him. The attending surgeon made two regular medical inspections daily, at 8 a. m. and 8 p. m., seeing individual cases oftener if occasion demanded. One or more Japanese physicians and directors made diurnal inspections, always accompanied by one or the other of the surgeons in charge, but not always at the stated hour of inspection, this irregularity being due to their work in inspecting vessels in the harbor, which was given precedence.

The surgeons in charge made daily visits to the cholera hospital, seeing all the patients thus isolated, consulting with the Japanese physicians in regard to treatment and diet, and carefully informing themselves as to the attention given the men.

Daily history.—September 10, at 8 a. m., 110 officers, soldiers, and civilians disembarked from the U. S. Army transport *Sherman*, and at 9 a. m. arrived at quarantine station, Nagasaki, where they and their property were thoroughly disinfected in the station. At 11 a. m. Private R. L., Company A, Fifth U. S. Infantry, sent ashore the night previous, died of Asiatic cholera. The body was cremated by the Japanese at 7 p. m. No suspects or new cases developed during the day.

September 11: At 9 a. m. the ashes of Private L. were delivered to the transport quartermaster. At 11 a. m. Acting Hospital Steward W. B. S., Hospital Corps, U. S. Army; Private L. B. N., Troop H, Eleventh U. S. Cavalry; Private M. M., Company I, Thirtieth U. S. Infantry, were transferred to ward 12 as cholera suspects, and specimens of stools taken for microscopical examination. At 1 p. m. examination of cultures made from intestinal contents secured from cases of A., H., L., and R. were examined and the presence of the comma bacillus in large numbers demonstrated in each case. At 8 p. m. several cases of diarrhea which had developed more serious symptoms were transferred to ward 10.

September 12: At 12 o'clock the cultures from the stools of S., N., and M. were examined and found to contain the cholera bacillus. The patients were at once transferred to the cholera hospital, and the entire hospital and detachment thoroughly disinfected as on the 10th. At 3 p. m. N. and Sergeant A., Troop K, Fifth U. S. Cavalry, were transferred from ward 10 to ward 12, and specimens for examination taken as before. At 8 p. m. Private G. E. O., Company I, Twenty-sixth U. S. Infantry, was transferred to ward 12. At the request of the Japanese officials specimens of the stools of Private J. R. G., Hospital Corps, U. S. Army; Second Class Private N. C. A., Corps of Engineers, U. S. Army, and W. F., quartermaster's employee, were prepared. Examination of cultures twenty-four hours later gave negative results. Cultures from the stools of all patients with suspicious diarrhea were examined for several consecutive days as a routine practice.

September 13: At 6.30 a. m. Private I. H., Troop L, Sixth U. S. Cavalry, was transferred to ward 12. Between 1 and 3 p. m. Sergeant A., Privates O. and H. were transferred to the cholera hospital, the microscopical diagnosis of cholera having been made. During the evening the isolation ward having been thoroughly disinfected, J. B., private, Company K, Eleventh U. S. Infantry, and Quartermaster Employees W. C. K. and W. F. were transferred to it. None of these men developed cholera, and there were no further suspects or cases during the life of the hospital.

September 14: At 4 a. m. Private H. died. The body was cremated the same afternoon and the ashes delivered to the transport quartermaster.

In view of the results obtained by the Japanese from the prophylactic injections of cholera vaccine, it was deemed advisable by the surgeons in charge to give the men the benefit of this treatment. Arrangements were made with the Japanese authorities to secure the necessary vaccine. Data as to the effects of this vaccine upon Americans being entirely lacking, the surgeons in charge decided to personally take the injection with a view of so ascertaining the effect as to intelligently eliminate those patients unable to undergo the treatment. With this end in view, Contract Surg. William C. Mabry received a hypodermic injection of 1 gram of cholera vaccine.

September 15: On this day Contract Surg. Harry C. Gemmill received 1 gram of cholera vaccine hypodermically.

September 16: On this date 30 men were chosen, after a careful physical examination, to receive a prophylactic injection of 1 gram of cholera vaccine. Pulse and temperature were recorded before the injection was given and thereafter every four hours for thirty-six hours.

September 17: At 9.45 a. m. Private M. died. At 4 p. m. Private O. died. Bodies were cremated and remains disposed of as in previous cases. There having been no untoward results from the injections of the day previous, 53 more patients and attendants were given 1 gram of cholera vaccine hypodermically, and observations recorded as before.

September 18: No case of cholera having developed since the 12th, and microscopical examination of specimens from all diarrhea cases proving negative, hopes were entertained of the suppression of the outbreak, and preparations made for a prompt reembarkation on the expiration of the slated quarantine at 10 a. m. on the 19th.

September 19: At 8 o'clock a. m. Acting Hospital Steward S. and Private N. were discharged from the cholera hospital, but owing to the protests of the transport surgeon, these men were not reembarked, but, with their baggage, were turned over to the depot quartermaster, Captain Baxter, U. S. Army, at Nagasaki, Japan. Descriptive lists and transfer slips of the convalescent patients, Acting Hospital Steward R. and Sergeant A. with their baggage, were delivered to Captain Baxter; the men themselves remaining in the cholera hospital in the care of the Japanese surgeons.

Early in the morning the surgeons in charge were officially informed by the Japanese authorities that the quarantine would terminate at 10 a. m., and that sampans for the transportation of detachment and property were then waiting at the piers. Details were immediately made of all available attendants and patients, the property conveyed to the sampans, and the buildings and grounds occupied thoroughly cleaned. At 9.30 a. m. the sampans, towed by the quarantine launches, left the piers and at 10 a. m. the detachment of 102 men, with all property, boarded the *Sherman*.

Cholera-vaccine, the preparation used with a view to conferring immunity from Asiatic cholera, is prepared as follows: As much of a pure, virulent culture of the comma bacillus as can be taken on a platinum wire loop one-sixteenth of an inch in diameter is added to 1 gram of a 0.5 per cent solution of sodium chloride. The solution is then agitated for a sufficient length of time to thoroughly distribute the bacilli throughout its bulk. It is then placed in a hot-water bath at a temperature of 60° C. for thirty minutes, after which sufficient carbolic acid is added to make the solution 0.5 per cent carbolic acid. The resulting preparation may be used at once, or preserved in sealed bottles for future use.

The present epidemic of cholera being the first to occur in Japan in which this serum treatment has been used, no records have been published up to date, but the following information was given officially by the Japanese surgeons: The administration of 1 gram of the vaccine, hypodermically is after the second day considered as conferring practical immunity for one month and greatly enhancing the chances for recovery in case cholera develops. For example, as all the coolies of the quarantine station were obtained from a certain small town, upon the outbreak of cholera at Nagasaki, it was deemed advisable to inoculate the entire population. In one forenoon a number of inhabitants were inoculated. In the afternoon 10 cases of cholera occurred; of these, six cases were from those not inoculated, all of whom died; 4 cases occurring among those inoculated gave a mortality of 50 per cent. During the period of the epidemic no further cases of cholera occurred among the inoculated inhabitants of this town, while among the noninoculated inhabitants the course of the disease was unchecked. All officials and attendants of the station had received the prophylactic injection and no case had developed among them to date.

With a view of conferring a more complete immunity and one of longer duration, a second injection of 2 grams is given on the seventh day and a third of 3 grams on the twenty-first day. Such a series of injections is believed to confer complete or practical immunity for from fifteen to twenty-four months. Sufficient cholera vaccine was obtained for the complete immunization of the surgeons in charge and their stewards. The injections were made during the voyage from Nagasaki to San Francisco and observations made.

In the treatment of Asiatic cholera there is used a blood serum antitoxin derived from a horse which has been immunized by successive injections of the comma bacillus after the method of immunization pursued in the preparation of the antitoxin of diphtheria of Behring, Roux, and Yersin. The regular dose of the serum is 18 grams injected hypodermically, repeated in twelve hours, although in practice from 10 to 72 grams are given, according to the severity and urgency of the case.

This blood serum antitoxin, as well as the cholera vaccine, is prepared in the Imperial Laboratory at Tokyo. They are not for sale and can be obtained and used by Government officials only. They are bottled in 30-gram blue-glass bottles, cork stoppered and wax sealed, and will retain their properties if kept in cool, dark storage from twelve to eighteen months. We were promised several bottles of serum and vaccine to take with us, but owing to the failure of a consignment to arrive from Tokyo in time and the exhaustion of their stock on hand, no serum could be given us, and only vaccine enough to complete our experimental injections en route to San Francisco. As to the efficiency of the blood serum antitoxin treatment for cholera, we had no opportunity for personal observations other than the 8 cases occurring in this hospital. In these cases, judging from the extended experience in the Philippine Islands and the means of treatment in vogue there, L., R., M., O., H., and A. stood absolutely no chance for life. L., M., O., and H. were bed patients in the wards and badly emaciated, and at the time attacked were in extremely poor condition physically. No power on earth, probably, could have saved these men; but the administration of the antitoxin, especially in the cases of M. and O., accomplished wonders. A few moments previous to the injection of the serum in the case of O., his heart beats could with difficulty be detected with a stethoscope and his condition was one of imminently impending death. He lived four days. The good results in M.'s case were as well marked. In the severe cases of R. and A., the antitoxin saved their lives, where other remedies undoubtedly would have failed. In the cases of S. and N., which were diagnosed at the earliest possible moment, a small injection in each case rendered the attack abortive, and at no time during their short illness was their condition markedly serious.

In such cases as produced suppression of urine the antitoxin restored the suspended function, and in all cases the comma bacillus promptly disappeared from the stools, as proved by numerous successive cultures resulting negatively.

We were officially informed by the chief surgeon, Mr. Kikuchi, that up to the time of our arrival in Japan they had taken from various ships and treated in the quarantine station hospital 31 cases of cholera in various stages with but 1 fatality. They with justice credited our comparatively high death rate to the debilitated condition of the individuals.

In Nagasaki and suburbs there were, up to September 15, 700 cases of cholera, many of which, owing to the popular prejudices, such as are always encountered in epidemics, received no treatment, but in spite of this fact, and that at times the supply of antitoxin was limited, there resulted a mortality of only 35 per cent, as compared with 72 to 80 per cent in the Philippine Islands and Manila, respectively.

The Japanese surgeons consider that a properly diagnosed case of cholera which receives prompt and intelligent treatment according to their methods rarely proves fatal. With this opinion, in view of the records produced, we are inclined to concur.

From the moment the Japanese quarantine officials boarded the transport *Sherman*, the night of the 9th of September, and so promptly and willingly began a thorough disinfection of the ship, until the reembarkation of the detachment which occupied the emergency quarantine hospital, their unfailing courtesy and obliging disposition impressed all who were brought into contact with them. The discipline of the station seemed perfect, and established rules were rigidly adhered to, but within these limits every effort was made to make the quarantine as little irksome as possible. In addition to these facts, the superintendent, Mr. Yokoyama, in honor of whom the hospital was named, and the chief surgeon, Mr. Kikuchi, saw personally that nothing was left undone which could possibly add to the comfort and efficiency of the hospital.

The subjective symptoms resulting from the experimental injections of cholera vaccine spoken of in this report were in no case of sufficient gravity to cause alarm, nor did any needle abscess develop at point of puncture, although there was always some swelling and occasional discoloration. The symptoms noted were classified in three groups.

Group I, comprising two-thirds of the cases, exhibited tenderness and pain at point of puncture, slight sensations of heaviness in frontal region, and slight depression.

Group II, about one-fourth of the cases, showed marked tenderness and pain at point of injection, moderate headache, slight axillary pain, and considerable depression.

Group III, one-twelfth of the whole, showed severe headache, marked tenderness at point of injection and in axilla, cramping in muscles of arms and legs, precordial pain, nausea, and marked depression. The highest temperature was 101° F. and the lowest 96° F. The greatest pulse rate was 120 and the lowest 58; cases which showed a temperature over 98.4°, or pulse rate over 80 prior to injection, are not included in this list.

The beginning of 1903 found cholera greatly checked in Luzon but prevalent in Samar, Leyte, Panay, and Mindanao. A serious outbreak among troops took place at Ormoc, Leyte, in December, 1902, 12 fatal cases occurring among four companies. The cause of infection was undoubtedly willful violation of the rules not to visit native huts or use native food or drinks.

Toward the end of the fiscal year reports from the Philippine Islands are to the effect that cholera is still prevalent in some places. Luzon has become much less affected, but the disease still smolders in this island, and there is an occasional recrudescence here and there. The Visayan islands are comparatively free, but cholera is prevalent among the Moros in Mindanao and Jolo.

VENEREAL DISEASES.

The steadily increasing prevalence of venereal disease is the most discouraging feature in the sick report of the Army. During 1902 13,000 admissions were from this cause alone, equivalent to a rate of 160.94 per thousand, and although only one death was reported, 309 men were discharged, a rate of 3.83 per thousand. These are the highest figures yet reported, particularly so in Cuba and Porto Rico. The following tabulation shows the varieties of venereal disease for different regions in 1902:

WHOLE ARMY PER THOUSAND OF STRENGTH.

	Admissions	Discharges.	Deaths.
Syphilis	22.37	2.74	0.01
Gonorrhea	106.58	1.04	
Chancroids	31.99	.05	
Total	160.94	3.83	.01

ARMY IN THE UNITED STATES.

	Admissions	Discharges.	Deaths.
Syphilis	23.03	4.38	
Gonorrhea	108.54	1.84	
Chancroids	29.57	.10	
Total	161.14	6.32	

ARMY IN THE PACIFIC ISLANDS.

	Admissions	Discharges.	Deaths.
Syphilis	20.36	0.79	0.03
Gonorrhea	102.50	.24	
Chancroids	33.34		
Total	156.20	1.03	.03

ARMY IN CUBA AND PORTO RICO.

	Admissions.	Discharges.	Deaths.
Syphilis	37.57	5.19	....
Gonorrhea	129.81	.61	....
Chancroids	45.82	....	....
Total	213.20	5.80	....

The Second International Conference for the Prevention of Venereal Diseases met in Brussels September 1 to 6, 1902, and was attended by Lieut. Col. Valery Havard, deputy surgeon-general, U. S. Army, as a delegate of the United States. On his return this officer prepared a booklet on "The Venereal Peril," a frank and well-considered discussion of the subject, simply expressed and intended for the use of United States soldiers. The pamphlet has been published by authority of the Secretary of War, and distributed to company commanders and recruiting officers for the information of the enlisted men, and can not but afford valuable assistance in the fight against immorality and disease.

The following excerpt from Colonel Havard's report of the proceedings of the conference is of interest:

> From the very first the conflict was opened between those who are in favor of the official regulation of prostitution, chiefly through the registration and medical examination of prostitutes, and those who oppose all state interference; in other words, between reglementarists and abolitionists. The former were represented by a large proportion, probably a small majority, of the German and French delegates, led by Doctors Neisser, Lassar, Fournier, Le Pileur, Barthelemy, and Burlureaux, while the latter were represented by a majority of the English and Italian delegates, led by Doctors Drysdale, Stuart, Lane, Santoliquido, Celli, Peroni, Mrs. Amos, and Miss Leppington. It is also necessary to say that in France, where reglementation originated, there is now a strong abolitionist sentiment, led by such representative men as Doctors Landouzy and Gailleton.
>
> The chief question was whether reglementation was justifiable on legal or moral grounds; and in view of the results obtained under it, is it legal, just, moral, for the government to tolerate and control houses of prostitution, and do statistics prove such régime to diminish venereal diseases?
>
> In spite of the long and full debates, no positive results or practical conclusions were reached, neither side succeeding in convincing the other. It was generally agreed that statistics on the subject are very incomplete and unreliable; that, being collected under different conditions and systems, they can not be utilized for purposes of international comparison. It was also generally agreed that reglementation as now carried out, especially in France and Germany, is very defective and ineffective and that it can not be maintained without serious modifications. To that extent the reglementarists show a spirit of conciliation, a desire to meet on a middle ground, as expressed by Doctor Neisser. What most of them want is a progressive and complete reform of reglementation so that coercive measures would be applied only to those women who, in spite of all efforts made to reclaim them or keep them free from infection, would not give up prostitution or voluntarily seek treatment when diseased. But the abolitionists stood firmly, one might say obstinately, by their principles and were uncompromising.
>
> My own views on the subject of public prophylaxis as officially presented to the conference were as follows:
>
> After enumerating the excellent recommendations of the official committee of fifteen of New York City (The Social Evil, G. P. Putnam's Sons, 1902), which refer only to social and moral prophylaxis and can be heartily indorsed by reglementarists and abolitionists alike, I expressed my belief that statistics, as I had seen and studied them, especially those of the armies of various countries, indicated the positive effect of reglementation in diminishing venereal diseases. Likewise my personal experience in Havana during the American occupation had strongly predisposed me in favor of it under certain conditions. Having substantiated my position with facts and figures, I then continued about as follows: I am in favor of any system whose object is to restrict prostitution and prevent the propagation of venereal dis-

eases. If reglementation attains such an end and gives such result, I am of the opinion that it is thereby justifiable and lawful. On moral grounds the state can lawfully permit or tolerate an evil (which experience has proved ineradicable) and regulate it by law in order to prevent a greater one; thus the state may tolerate houses of prostitution in order the better to keep them under control and mitigate the terrible results of venereal contamination.

But although admitting the legality and morality of the principle of reglementation, I do not thereby conclude that it is to be imposed under all circumstances. There are laws excellent in theory but of impossible application, and such laws are more detrimental than useful. Such is reglementation—good in theory, good also in practice under certain social conditions and when fairly administered, but worse than useless where public spirit is against it, and its honest, integral application, impracticable.

All this being said, I wish to proclaim with emphasis my conviction that if official sanitary regulations may be good, moral prophylaxis is still better, that it must be the base and foundation of all reforms, and that without it none of the social evils can be successfully combated. It is in the conscience of the young man that prophylaxis should begin. In the last analysis one must fall back ever upon the paramount question of education, that is to say, the development of Christian character, in which church and state are vitally interested and must promote by all possible means.

* * * * * * *

The conference recognized without discussion that one of the most efficacious means of checking venereal diseases is to make adequate provisions for their treatment. To that end the following resolution (offered by Doctors Gaucher, of Paris, and Jadassohn, of Berne) was passed unanimously:

"It is desirable that the law should insure to all persons suffering from venereal diseases gratuitous treatment in the largest measure possible; that all regulations in hospitals, dispensaries, and clinics discriminating against such persons be abolished; that in the treatment of venereal patients in public institutions due regard be paid to their feelings and that professional secrecy be respected."

* * * * * * *

The instruction of youth and the general public as to the nature and danger of venereal diseases is another important subject which received its full share of discussion. There was a prevailing opinion that this knowledge should be vulgarized, at least among young men, so that they should not sin in ignorance of the possible consequences. In this opinion reglementarists and abolitionists joined hands. Unfortunately there was great divergence of means proposed. Some wanted the instruction imparted to young men from 16 in all schools and colleges; others wanted the minimum age raised to 18; others thought best to restrict it to certain classes of still maturer young men, such as soldiers, sailors, members of clubs or associations, workmen in factories, etc. Not a few recommended the uses of pictures and casts as object lessons to produce a more lively and deterrent impression.

The following two resolutions, passed by unanimous vote, show the importance attached by the conference to this question of instruction:

1. Introduced by Doctor Troisfontaines, of Liege:

"To furnish each recruit coming to his regiment with a printed instruction upon the dangers of syphilis and gonorrhea, reminding him of the necessity, when suffering from these diseases, of promptly consulting a physician, adding, if deemed useful, brief indications concerning the dangers of alcoholism and the prevention of tuberculosis. On leaving the service the soldier should not forget to carry this instruction with him."

2. Introduced by M. Minod, of Geneva:

"The most important and efficacious means of combating the propagation of venereal diseases is the largest possible vulgarization of our knowledge of the gravity and dangers of these diseases. It is especially necessary to teach young men that not only are chastity and continence not prejudicial to health, but, on the contrary, most commendable from the medical point of view."

ALCOHOLISM.

Admissions to sick report from this cause in 1902 were slightly in excess of the number (including volunteers) for 1901. A total number of 1,830 cases, equivalent to 22.65 per thousand of strength, occurred; also 7 discharges and 24 deaths are to be charged to alcoholism during the year. The small part of the Army serving at West Indian stations was decidedly more seriously affected than troops elsewhere, the admission rate in Cuba and Porto Rico being 48.26 per thousand, while in the United States it was 24.44 and in the Pacific islands only 18.56.

The comparatively good showing made by the forces in the Philippines is due to the remarkable temperance of the Philippine scouts, and also to the fact that organizations before going to the islands generally rid themselves as far as possible of men unfitted for tropical service, among whom there are always some enfeebled by alcoholic indulgence.

Measures taken during the cholera epidemic to keep men out of native huts have probably also contributed to diminish alcoholism in the islands.

While the admission rate for alcoholism represents only so much of the total intemperance of the Army as comes under the professional observation of the medical officers, nevertheless, when taken for a long term of years and for many thousands of men, it is a very fair index of the drinking habits of the troops. From the reports of the Surgeon-General for the past twenty years it is found that alcoholism is not nearly so great an evil in the Army as it was prior to the establishment of the post exchange, allowing the sale of beer and light wines to the soldier. From 1883 to 1888 the annual admission rate for alcoholism varied from 69 to 40 per thousand. When this last figure was reached the Surgeon-General reported, in 1889, "There is here manifested a gratifying temperance movement which it is hoped the canteen system may render more actively progressive," and in 1890, "Prohibition on the military reservation has been suggested and tried, but this has immediately invited the establishment of dens of dissipation and disease just beyond the jurisdiction of the commanding officer. License on the reservation, in the opinion of our medical officers, is infinitely preferable to unbridled license outside of it. It is believed that the canteen system will have a greater effect in reducing the statistics of alcoholism than any measure that has yet been tried."

This hope and belief seem to have been abundantly justified, as will be seen from the following tabulation, showing a steady decrease of alcoholism:

Admission rate for alcoholism per thousand of strength, Regular Army, 1889 to 1902, inclusive.

Year.	Rate.	Year.	Rate.
1889	41.43	1896	29.06
1890	40.73	1897	27.86
1891	40.01	1898	15.16
1892	37.23	1899	18.70
1893	33.97	1900	18.38
1894	30.94	1901	23.80
1895	30.11	1902	22.65

The Spanish-American war, by putting the whole Regular Army into active service, greatly reduced alcoholism, but the rates rose again in the next two years. In February, 1901, the sale of beer was prohibited in post exchanges, and admission rates increased markedly that year.

It is impossible, also, not to attribute a large part of the steadily increasing venereal disease of the Army to the loss of the canteen, where the soldier, if he so desired, could get his beer throughout the month, but was not subjected to the temptations to intemperance and vice now attendant upon the expenditure of a full month's pay at the low resorts infesting the outskirts of our military reservations.

INSANITY.

A slight diminution of insanity occurred in the Army during 1902. There were 138 new cases, equivalent to an admission rate of 1.71 per thousand, which is almost identical with the rate for the decade 1891 to 1900.

Forty-eight insane men remained on the rolls at the end of 1901, making a total of 186 cases under observation during the year 1902, originating as follows:

Philippine Islands	114	Cuba	6
United States	63	Porto Rico	0
Hawaii	1		
China	1	Total	186
Alaska	1		

These cases were disposed of as follows:

Returned to duty	12
Discharged for disability while in military hospitals	4
Died in hospitals	2
Placed under care of municipal authorities, Manila, P. I	2
Discharged while in Government Hospital for the Insane	147
Died while in Government Hospital for the Insane	1
Remaining, December 31, 1902, in Government Hospital for the Insane (undischarged)	4
Remaining in military hospitals December 31, 1902	14

The two cases placed in the charge of the municipality of Manila were Philippine scouts.

In 69 cases, or over one-third of the entire number, the diagnosis was melancholia, in 31 cases "delusional insanity," in 18 "acute dementia," and the remaining admissions embraced almost all the forms of insanity recognized by alienists.

Alcoholism was specifically mentioned as the cause of insanity in 25 instances, 13 men gave evidence of mental derangement prior to enlistment, 2 cases followed dengue, 2 occurred after mumps, and in 2 sunstroke was given as a cause.

Five cases were attended with epilepsy, 4 were noted as syphilitic, and 1 died in hospital of abscess of the brain.

Several years' experience seems to demonstrate that tropical service, while it undoubtedly slightly increases the insanity among soldiers, will not materially change the sick rates from this cause noted in past years.

INJURIES.

The admission rate for injuries during 1902 was greater than for the previous year, but the mortality rate was only slightly above one-half of that for 1901. With a mean strength of 80,778 men, 16,335 were admitted to sick report, 286 were discharged, and 219 died, giving a rate per thousand of 202.22 admitted, 3.54 discharged, and 2.71 dead.

The admission rates for the United States and Cuba and Porto Rico, 244.60 and 256.87 per thousand, respectively, contrast strongly with the admission rate in the Pacific islands, which was only 152.91 per thousand. It was remarked by my predecessor last year "that in time of peace men report for admission to sick report and excuse from duty for slight injuries which would not lead them to do so if in service of an active or quasi active character." The small rate for injuries in the Pacific islands, where alone there was active service, and the large one at home furnish additional evidence in this direction.

The death rate from injury was: In the United States 2.16; in the Pacific islands 3.23, and in Cuba and Porto Rico 3.36.

There were 16 deaths from drowning in the United States, 32 in the Pacific islands, and 1 in the West Indies, equivalent in the whole Army to 0.61 per thousand of strength. This is less than the rate for the decade 1891–1900, which was 0.79 per thousand of strength.

Exhaustion from exposure and fatigue was reported in 43 cases in the United States, 61 in the Pacific islands, and 8 in Cuba and Porto Rico. One death occurred in the Philippines from this cause.

Eighty-five cases of heat stroke were admitted as against 207 cases the previous year. No death or discharge resulted from this cause. There were 13 cases in the United States, 71 in the Pacific islands, and only 1 in Cuba and Porto Rico. The admission rate was, therefore, considerably less than half of that noted the previous year.

One soldier was struck by lightning in the Philippines and 1 in the United States, both recovering without permanent effects.

Under the grouping "venomous bites, stings, and wounds" are included 535 admissions to sick report during the year, with no death and but 1 discharge. Of these the Philippine Islands furnished about one-half. Danger to life and health from the bites of venomous insects and reptiles in the tropical countries occupied by our troops is seen to be practically non-existent, scarcely greater than at home stations, and in comparison with the potency for evil of the mosquito in its disease-carrying capacity, sinks into utter insignificance.

There were 361 cases of hernia with 59 discharges, and 152 were operated upon, including 148 inguinal herniæ, 1 scrotal, 2 ventral, and 1 umbilical. One death only occurred after operation, and this was from measles.

Out of the total admission rate for injuries of 202.22 per thousand, 156.87 were abrasions, burns, sprains, contusions, and wounds incised, lacerated, and punctured. There were 52 fractures, not gunshot, and 15 dislocations.

In the Philippine Islands, excluding gunshot, 8 men were killed in action and 25 wounded, of whom 1 died and 5 were discharged; 7 were killed by the bolo and 1 by the spear. The wounded were injured as follows: Seventeen by the bolo, 3 by the spear, 3 by stones, 1 each by the Moro kris and the kampilan or two-handed sword. The single death was from a spear wound of the abdomen perforating the intestines in six places. Immediate operation with closure of the wounds by suture was done, but the patient died on the day of injury.

The following tables give details:

Wounds other than gunshot received in action (exclusive of deaths not on sick report.)

Character and location of wound.	Weapon.						Disposition.		
	Bolo.	Spear.	Kris.	Kampilan.	Stone.	Total.	Duty.	Certificates of disability.	Died.
Head:									
Flesh	1	......	......	......	......	1	1	......	......
Fracture	1	......	......	......	......	1	1	......	......
Face, flesh	......	1	......	......	1	[a]2	1	1	......
Thorax, nonpenetrating	1	......	......	......	......	1	1	......	......
Abdomen, penetrating	......	1	......	......	......	[b]1	......	......	1
Back and hip, flesh	2	......	......	1	2	5	5	......	......
Arm:									
Flesh	1	......	......	......	......	[c]1	......	1	......
Fracture	1	......	......	......	......	[d]1	......	1	......
Elbow joint	1	......	......	......	......	1	......	1	......
Forearm, fracture	1	......	......	......	......	[e]1	1	......	......
Hand, flesh	7	......	......	......	......	7	7	......	......
Carpus and metacarpus, fracture	......	......	1	......	......	1	......	1	......
Fingers, fracture	1	......	......	......	......	1	1	......	......
Thigh, flesh	......	1	......	......	......	1	1	......	......
Total	17	3	1	1	3	25	19	5	1

[a] In one case, eye enucleated.

[b] Wounded August 12, 1902; wound enlarged under chloroform, and six perforations of ileum closed with cat-gut sutures; died day of injury.

[c] Wound cleansed and belly of triceps left arm sutured.

[d] May 24, 1902, right arm severed by bolo cut; same day stump amputated by a modified circular-flap operation 1 inch below deltoid tubercle.

[e] Wounded June 23, 1902; tendon of extensor communis digitorum severed by bolo; July 8, 1902, ends of divided tendon exposed by free incision and united end to end by kangaroo tendon. Annular ligament united by deep sutures of same material.

NOTE.—Three bolo-wound cases remaining in hospital at date of last annual report, were disposed of as follows: Wound of hip, recovered June, 1903; fracture of forearm, returned to duty February, 1903; fracture of finger, discharged for disability September, 1902.

Killed in action by wounds other than gunshot.

Character and location of wound.	Bolo.	Spear.	Total.
Neck	5	....	[a]5
Chest, penetrating	1	....	1
Abdomen, penetrating	....	1	1
Not described	1	....	[b]1
Total	7	1	8

[a] These were beheaded.

[b] Died of multiple incised and punctured wounds.

GUNSHOT INJURIES.

At the end of the calendar year 1901, 11 cases of gunshot wound remained under treatment—3 received in action and 8 otherwise. Of these, 3 died, 1 was returned to duty, and 7 were discharged for disability.

Gunshot-wound cases remaining in hospital January 1, 1902, showing dispositions.

Character and location of wound.	How received.											
	In action.				Not in action.				Total.			
	Remaining at last report.	Disposition.			Remaining at last report.	Disposition.			Remaining at last report.	Disposition.		
		Duty.	Certificates of disability.	Died.		Duty.	Certificates of disability.	Died.		Duty.	Certificates of disability.	Died.
Face, flesh	......	....	......	......	1	....	1	......	1	....	1	......
Abdomen, penetrating	......	....	......	......	1	....	......	[a] 1	1	....	......	1
Elbow joint	1	....	1	......	......	....	......	......	1	....	1	......
Forearm fracture	......	....	......	......	1	....	1	......	1	....	1	......
Carpus and metacarpus, fracture	......	....	......	......	1	....	1	......	1	....	1	......
Thigh:												
Flesh	1	....	1	......	......	....	......	......	1	....	1	......
Fracture, upper third	......	....	......	......	1	....	1	......	1	....	1	......
Fracture, middle third	......	....	......	......	1	....	1	......	1	....	1	......
Fracture, lower third	1	....	......	[b] 1	......	....	......	......	1	....	......	1
Knee joint	......	....	......	......	1	....	......	[c] 1	1	....	......	1
Leg, fracture	......	....	......	......	1	1	......	......	1	1	......	......
Total	3	....	2	1	8	1	5	2	11	1	7	3

[a] Wounded December 31, 1901; died of suppurative peritonitis, January 7, 1902.
[b] Wounded October 16, 1901; died of osteo-myelitis left femur, June 10, 1902.
[c] Wounded October 27, 1901; died of chronic septicemia, January 30, 1902.

In 1902, 74 soldiers were killed by gunshot, of whom 20 fell in action, 11 were accidental, 31 were suicides and 12 homicides. These cases are summarized in the following table, the nature of missile in each instance being indicated:

Killed by gunshot, 1902.

Character and location of wound.	How received.					Nature of missile.									
		Not in action.				In action.					Not in action.				
	In action.	Accidental.	Suicidal.	Homicidal.	Total.	Krag-Jörgensen.	Mauser.	Remington.	Slug.	Missile not stated.	Krag-Jörgensen.	Springfield.	Revolver.	Missile not stated.	Cannon.
Head, fracture	6	3	26	2	37	3	....	....	1	2	10	....	19	2	....
Neck	5	2	....	....	7	....	1	2	1	1	1	....	1	....	....
Chest, penetrating	5	3	4	6	18	1	....	2	1	1	5	2	4	2	....
Abdomen, penetrating	3	2	....	2	7	....	....	3	....	....	3	....	....	1	....
Thigh, flesh	1	....	....	1	2	....	....	....	....	1	....	....	....	1	....
Wound not described	....	[a] 1	1	1	3	....	....	....	....	....	1	....	....	1	1
Total	20	11	31	12	74	4	1	7	3	5	20	2	24	7	1

[a] Upper part of body blown to fragments by premature discharge of cannon.

Excluding those killed outright, 329 men injured by gunshot were admitted during the year 1902, equivalent to 4.07 per thousand of strength, with 23 deaths, about 7 per cent of the wounded.

There were 96 soldiers shot in battle, of whom 20 were killed outright and 5 died as a result of their wounds, a little less than 26 per cent of fatality for all men struck, and a death rate for those not instantly killed of 6.57 per cent.

Four were killed in action and 11 wounded by the Krag-Jörgensen bullet; 1 killed and 16 wounded by the Mauser; 7 killed and 25 wounded by the Remington. In the cases of 5 dead and 11 wounded the missile was not reported. One man only was wounded with a revolver, and 1 by a fragment of the jacket of a bullet. Three soldiers were killed and 11 wounded by slugs from the lantaca, the small cannon of the Moro forts.

Among the 54 men killed and 253 wounded by gunshot not in action, 11 deaths and 183 wounds were marked in line of duty, 57 wounded not in line of duty, 31 deaths and 7 wounds were suicidal, 12 deaths and 6 wounds were homicidal.

Of the 253 wounded, 19 died, 182 were returned to duty, 35 discharged on certificates of disability, 3 by order, 3 by expiration of service, 1 was dropped, and 1 deserted, leaving 9 remaining on sick report January 1, 1903.

The revolver which played so small a part in battle casualties was the lethal weapon in 24 deaths not in action and caused the wounds of 102 men, while the service rifle and carbine killed 20 and wounded 83. In 7 deaths and 35 wounds the missile was not stated and the remaining casualties were caused by the Springfield, the Winchester, the shotgun, blank cartridge, explosion of cartridge, explosion of black powder through the unclosed breech of a 12-inch gun, and one most unusual case in which the brass head of the friction primer of a 10-inch gun, insecurely seated, was blown backward, mortally wounding a bystanding soldier by fracturing a vertebra and crushing the cord.

Among the wounded the skull was fractured in 5 cases, 3 of which were fatal; in 1 case the depressed fragments of bone were elevated.

Thirteen wounds of the face, including 6 fractures, were reported, with 9 recoveries, 3 discharges for disability, and 1 remaining January 1, 1903. In 1 case enucleation of the eye was necessary.

The neck was wounded in 6 cases, of which all recovered. Tracheotomy was performed in 1 case.

The single case of fracture of the spine is noted above.

The thorax was struck in 23 cases and penetrated in 13. In 1 nonpenetrating wound death took place from traumatic pneumonia, the rest recovered. Four of the patients with penetrating wounds died, 8 were returned to duty, and 1 discharged.

In one case the bullet was located by the X ray and removed, the patient making a good recovery. In 1 fatal case a portion of the seventh rib was excised and an empyemic cavity drained.

Six instances of non-penetrating wound of the abdomen occurred, all recovering, but of 10 penetrating wounds 8 were fatal, 1 was discharged, and 1 only returned to duty. In both non-fatal cases laparotomy was performed and intestinal wounds closed by suture. In 3 of the fatal cases laparotomy was also performed; in one of them death resulted from acute suppurative cerebro-spinal meningitis.

The pelvis was fractured twice; fragments of bone were removed in each case, and in one the brass jacket of a Remington bullet; both recovered and were returned to duty.

The clavicle or scapula was fractured three times, all recovering.

The shoulder joint was penetrated once, with recovery.

Fourteen cases of flesh wound of the arm occurred; all recovered. In 2 cases subsequent operation for traumatic aneurism of the brachial artery was successfully performed; in another case the musculo-spiral nerve was repaired.

The single case of fracture of the arm resulted fatally from septicemia after amputation at the shoulder joint.

Three wounds of the elbow joint were reported; all recovered, and all were discharged for disability. It was necessary in each case to remove bone from the joint, and in one to remove a portion of the ulna and the lower third of the humerus.

The forearm was fractured six times, with no death, but in 3 cases amputation was necessary.

The wrist joint was wounded once, with recovery.

The hand was wounded in 83 cases, including 10 fractures of the carpus or metacarpus, and 48 fractures of the fingers. All recovered except 1 case of fractured finger, in which death resulted from septicemia.

The finger was amputated 35 times, and 6 other operations on the hand were done.

The hip joint was not wounded during the year, but the thigh was fractured 6 times, with 3 deaths. In one of the fatal cases immediate amputation at the middle third was done; in another late amputation at the middle third for necrosis was done and death from osteo-myelitis finally resulted, and in the third case amputation at the hip joint was done several weeks after injury. One amputation at the hip joint resulted in recovery.

The knee joint was wounded in 4 cases, with no death.

The ankle joint was not wounded.

Thirty-eight wounds of the leg, including 11 fractures, were reported, with no mortality. Two amputations only were necessary and 3 operations for removal of bullet or fragments of bone.

The foot was wounded in 30 cases, including 8 fractures of the tarsus and metatarsus and 4 fractures of the toes. No fatal case was among these and only 2 operations, an amputation of the great toe and removal of the second toe with its metatarsal bone.

The following tables show in detail the data concerning the gunshot wounds treated during the year:

A. Gunshot wounds received in action.
B. Gunshot wounds other than battle wounds.
C. All gunshot wounds.
D. Gunshot wounds which terminated fatally.
E. Surgical operations for gunshot wounds.

A.—*Gunshot wounds received in action (exclusive of deaths not on sick report).*

Character and location of wound.	Nature of missile.								Disposition.					
	Mauser.	Remington.	Krag-Jörgensen.	Revolver.	Missile not stated.	Lantaca slug.	Jacket of bullet.	Total.	Duty.	Certificate of disability.	Died.	Expiration of service.	Remaining last report.	Total.
Head:														
Flesh	....	....	1	....	....	....	....	1	1	....	....	....	....	1
Fracture	....	1	....	....	....	....	....	1	1	....	....	....	....	1
Face, fracture	....	....	....	....	....	2	....	2	....	1	....	....	1	2
Neck	....	....	....	....	1	....	....	1	1	....	....	....	....	1
Thorax:														
Non-penetrating	....	2	2	....	1	....	1	6	5	....	[a]1	....	....	6
Penetrating	2	....	....	....	....	1	....	3	....	1	2	....	....	3
Abdomen:														
Non-penetrating	1	....	....	....	1	....	....	2	2	....	....	....	....	2
Penetrating	....	....	....	....	....	1	....	1	....	....	1	....	....	1
Pelvis, fracture	....	1	....	....	....	....	....	1	1	....	....	....	....	1
Back and hip, flesh	....	2	1	....	....	....	....	3	3	....	....	....	....	3
Shoulder, flesh	1	1	....	1	....	1	....	4	3	....	....	1	....	4
Clavicle or scapula, fracture	....	1	1	....	....	....	....	2	1	1	....	....	....	2
Shoulder joint	1	....	....	....	....	....	....	1	....	1	....	....	....	1
Arm, flesh	2	2	....	....	....	1	....	5	5	....	....	....	....	5
Elbow joint	....	1	1	....	....	....	....	2	....	2	....	....	....	2
Forearm:														
Flesh	2	1	....	....	2	....	....	5	5	....	....	....	....	5
Fracture	....	....	1	....	....	....	....	1	....	....	....	....	1	1
Fingers, fracture	....	....	2	....	....	1	....	3	3	....	....	....	....	3
Thigh:														
Flesh	3	8	....	....	3	2	....	16	11	3	....	....	2	16
Fracture, lower third	1	1	....	....	....	....	....	2	1	....	....	....	1	2
Leg:														
Flesh	1	2	....	....	1	1	....	5	4	1	....	....	....	5
Fracture	....	2	....	....	1	....	....	3	2	1	....	....	....	3
Foot, flesh	....	....	1	....	....	1	....	2	2	....	....	....	....	2
Tarsus and metatarsus, fracture	2	....	....	....	1	....	....	3	2	1	....	....	....	3
Toes, fracture	....	....	1	....	....	....	....	1	1	....	....	....	....	1
Total	16	25	11	1	11	11	1	76	54	12	4	1	5	76

[a] Died of traumatic pneumonia.

B.—*Gunshot wounds other than battle wounds (exclusive of deaths not on sick report).*

Character and location of wound.	How received.				Nature of missile.						
	Accidental.[a]	Suicidal.	Homicidal.	Total.	Krag-Jörgensen.	Springfield.	Winchester.	Revolver.	Missile not stated.	Shotgun.	Fragment of bullet.
Head:											
Flesh	3	....	....	3	....	....	....	......	1	....	1
Fracture	3	1	....	4	1	....	....	1	2	....	....
Face:											
Flesh	6	1	....	7	....	....	....	......	1	1	....
Fracture	2	2	....	4	2	....	....	2	....	....	....
Neck	5	....	....	5	2	....	....	2	1	....	....
Spine, fracture	1	....	....	1	....	....	....	......	....	....	....
Thorax:											
Non-penetrating	4	....	....	4	1	....	....	......	....	2	....
Penetrating	8	1	1	10	7	....	....	3	....	....	....
Abdomen:											
Non-penetrating	4	....	....	4	2	....	....	1	1	....	....
Penetrating	6	....	3	9	2	....	....	4	3	....	....
Pelvis, fracture	1	....	....	1	....	1	....	......	....	....	....
Back and hip, flesh	5	....	....	5	....	....	....	3	2	....	....
Perineum, genital and urinary organs	2	....	....	2	....	....	....	2	....	....	....
Shoulder, flesh	2	1	....	3	1	....	....	2	....	....	....
Clavicle or scapula, fracture	1	....	....	1	....	....	....	1	....	....	....
Arm:											
Flesh	9	....	....	9	2	....	....	7	....	....	....
Fracture	1	....	....	1	1	....	....	......	....	....	....
Elbow joint	1	....	....	1	1	....	....	......	....	....	....
Forearm:											
Flesh	6	1	....	7	1	....	....	3	3	....	....
Fracture	4	....	1	5	1	....	....	2	1	....	....
Wrist joint	1	....	....	1	1	....	....	......	....	....	....
Hand, flesh	25	....	....	25	5	....	....	9	4	1	1
Carpus and metacarpus, fracture	10	....	....	10	7	2	....	......	....	1	....
Fingers, fracture	45	....	....	45	26	....	....	10	5	3	....
Thigh:											
Flesh	24	....	....	24	5	....	....	15	1	....	....
Fracture, upper third	1	....	....	1	1	....	....	......	....	....	....
Fracture, middle third	......	....	1	1	1	....	....	......	....	....	....
Fracture, lower third	2	....	....	2	....	....	....	2	....	....	....
Knee joint	4	....	....	4	....	....	....	4	....	....	....
Leg:											
Flesh	22	....	....	22	2	....	....	15	4	1	....
Fracture	8	....	....	8	2	....	....	4	2	....	....
Foot, flesh	16	....	....	16	4	....	1	8	3	....	....
Tarsus and metatarsus, fracture	5	....	....	5	3	....	....	1	1	....	....
Toes, fracture	3	....	....	3	2	....	....	1	....	....	....
Total	240	7	6	253	83	3	1	102	35	9	2

[a] Fifty-seven of these were not in line of duty.

B.—*Gunshot wounds other than battle wounds (exclusive of deaths not on sick report).*

Nature of missile.							Disposition.								
Cannon.	Powder.	Blank cartridge.	Explosion of rifle.	Explosion of cartridge.	Explosion of primer.	Total.	Duty.	Certificate of disability.	Died.	Discharged by order.	Dropped.	Expiration of service.	Deserted.	Remaining at last report.	Total.
			1			3	3								3
						4	1		3						4
	3			2		7	5	[a]2							7
						4	4								4
						5	4	1							5
					1	1			1						1
	1					4	4								4
						10	8		2						10
						4	4								4
						9	1	1	7						9
						1	1								1
						5	5								5
						2	2								2
						3	2							1	3
						1	1								1
						9	6	3							9
						1			1						1
						1		1							1
						7	5			2					7
1						5	3	2							5
						1		1							1
	1			3	1	25	24	1							25
						10	6	4							10
1						45	32	12	1						45
		1	1	1		24	19	1	1		[b]1			2	24
						1			1						1
						1			1						1
						2	1		1						2
						4	1	1				1		1	4
						22	19	1				2			22
						8	3	3						2	8
						16	14							2	16
						5	2			1			1	1	5
						3	2	1							3
2	5	1	2	6	2	253	182	35	19	3	1	3	1	9	253

[a] One discharged for insanity.
[b] Dropped as a general prisoner.

C.—*All gunshot wounds (exclusive of deaths not on sick report).*

Character and location of wound.	How received.					Nature of missile.					
		Not in action.									
	In action.	Accidental.	Suicidal.	Homicidal.	Total.	Krag-Jörgensen.	Mauser.	Remington.	Springfield.	Winchester.	Revolver.
Head:											
Flesh	1	3	....	....	4	1	....	....	....	....	....
Fracture	1	3	1	....	5	1	....	1	....	....	1
Face:											
Flesh	....	6	1	....	7	....	....	....	....	....	....
Fracture	2	2	2	....	6	2	....	....	....	....	2
Neck	1	5	....	....	6	2	....	....	....	....	2
Spine, fracture	....	1	....	....	1	....	....	....	....	....	....
Thorax:											
Non-penetrating	6	4	....	....	10	3	....	2	....	....	....
Penetrating	3	8	1	1	13	7	2	....	....	....	3
Abdomen:											
Non-penetrating	2	4	....	....	6	2	1	....	....	....	1
Penetrating	1	6	....	3	10	2	....	....	....	....	4
Pelvis, fracture	1	1	....	....	2	....	....	1	1	....	....
Back and hip, flesh	3	5	....	....	8	1	....	2	....	....	3
Perineum, genital and urinary organs	....	2	....	....	2	....	....	....	....	....	2
Shoulder, flesh	4	2	1	....	7	1	1	1	....	....	3
Clavicle or scapula, fracture	2	1	....	....	3	1	....	1	....	....	1
Shoulder joint	1	....	....	....	1	....	1	....	....	....	....
Arm:											
Flesh	5	9	....	....	14	2	2	2	....	....	7
Fracture	....	1	....	....	1	1	....	....	....	....	....
Elbow joint	2	1	....	....	3	2	....	1	....	....	....
Forearm:											
Flesh	5	6	1	....	12	1	2	1	....	....	3
Fracture	1	4	....	1	6	2	....	....	....	....	2
Wrist joint	....	1	....	....	1	1	....	....	....	....	....
Hand, flesh	....	25	....	....	25	5	....	....	....	....	9
Carpus and metacarpus, fracture	....	10	....	....	10	7	....	....	2	....	....
Fingers, fracture	3	45	....	....	48	28	....	....	....	....	10
Hip joint	....	....	....	....	....	....	....	....	....	....	....
Thigh:											
Flesh	16	24	....	....	40	5	3	8	....	....	15
Fracture, upper third	....	1	....	....	1	1	....	....	....	....	....
Fracture, middle third	....	....	....	1	1	1	....	....	....	....	....
Fracture, lower third	2	2	....	....	4	....	1	1	....	....	2
Knee joint	....	4	....	....	4	....	....	....	....	....	4
Leg:											
Flesh	5	22	....	....	27	2	1	2	....	....	15
Fracture	3	8	....	....	11	2	....	2	....	....	4
Ankle joint	....	....	....	....	....	....	....	....	....	....	....
Foot, flesh	2	16	....	....	18	5	....	....	....	1	8
Tarsus and metatarsus, fracture	3	5	....	....	8	3	2	....	....	....	1
Toes, fracture	1	3	....	....	4	3	....	....	....	....	1
Total	76	240	7	6	329	94	16	25	3	1	103

C.—*All gunshot wounds (exclusive of deaths not on sick report).*

Nature of missile.												Disposition.								
Lantaca slug.	Missile not stated.	Shotgun.	Fragment of bullet.	Cannon.	Powder.	Jacket of bullet.	Blank cartridge.	Explosion of rifle.	Explosion of cartridge.	Explosion of primer.	Total.	Duty.	Certificate of disability.	Died.	Discharged by order.	Dropped.	Expiration of service.	Deserted.	Remaining at last report.	Total.
....	1	....	1	....	....	....	....	1	....	....	4	4	......	...	....	....	....	....	......	4
....	2	....	....	....	....	....	....	....	....	....	5	2	......	3	....	....	....	....	......	5
....	1	1	....	....	3	....	....	....	2	....	7	5	a2	...	....	....	....	....	......	7
2	....	....	....	....	....	....	....	....	....	....	6	4	1	...	....	....	....	....	1	6
....	2	....	....	....	....	....	....	....	....	....	6	5	1	...	....	....	....	....	......	6
....	....	....	....	....	....	....	....	....	....	1	1	......	......	1	....	....	....	....	......	1
....	1	2	....	....	1	1	....	....	....	....	10	9	......	1	....	....	....	....	......	10
1	....	....	....	....	....	....	....	....	....	....	13	8	1	4	....	....	....	....	......	13
....	2	....	....	....	....	....	....	....	....	....	6	6	......	...	....	....	....	....	......	6
1	3	....	....	....	....	....	....	....	....	....	10	1	1	8	....	....	....	....	......	10
....	....	....	....	....	....	....	....	....	....	....	2	2	......	...	....	....	....	....	......	2
....	2	....	....	....	....	....	....	....	....	....	8	8	......	...	....	....	....	....	......	8
....	....	....	....	....	....	....	....	....	....	....	2	2	......	...	....	....	....	....	......	2
1	....	....	....	....	....	....	....	....	....	....	7	5	......	...	....	....	1	....	1	7
....	....	....	....	....	....	....	....	....	....	....	3	2	1	...	....	....	....	....	......	3
....	....	....	....	....	....	....	....	....	....	....	1	......	1	...	....	....	....	....	......	1
1	....	....	....	....	....	....	....	....	....	....	14	11	3	...	....	....	....	....	......	14
....	....	....	....	....	....	....	....	....	....	....	1	......	......	1	....	....	....	....	......	1
....	....	....	....	....	....	....	....	....	....	....	3	......	3	...	....	....	....	....	......	3
....	5	....	....	....	....	....	....	....	....	....	12	10	......	...	2	....	....	....	......	12
....	1	....	....	1	....	....	....	....	....	....	6	3	2	...	....	....	....	....	1	6
....	....	....	....	....	....	....	....	....	....	....	1	......	1	...	....	....	....	....	......	1
....	4	1	1	....	1	....	....	....	3	1	25	24	1	...	....	....	....	....	......	25
....	1	....	....	....	....	....	....	....	....	....	10	6	4	...	....	....	....	....	......	10
1	5	3	....	1	....	....	....	....	....	....	48	35	12	1	....	....	....	....	......	48
....	....	....	....	....	....	....	....	....	....	....	......	......	......	...	....	....	....	....	......	......
2	4	....	....	....	....	....	1	1	1	....	40	30	4	1	....	b1	....	....	4	40
....	....	....	....	....	....	....	....	....	....	....	1	......	......	1	....	....	....	....	......	1
....	....	....	....	....	....	....	....	....	....	....	1	......	......	1	....	....	....	....	......	1
....	....	....	....	....	....	....	....	....	....	....	4	2	......	1	....	....	....	....	1	4
....	....	....	....	....	....	....	....	....	....	....	4	1	1	...	....	....	1	....	1	4
1	5	1	....	....	....	....	....	....	....	....	27	23	2	...	....	....	2	....	......	27
....	3	....	....	....	....	....	....	....	....	....	11	5	4	...	....	....	....	....	2	11
....	....	....	....	....	....	....	....	....	....	....	......	......	......	...	....	....	....	....	......	......
1	3	....	....	....	....	....	....	....	....	....	18	16	......	...	....	....	....	....	2	18
....	2	....	....	....	....	....	....	....	....	....	8	4	1	...	1	....	....	1	1	8
....	....	....	....	....	....	....	....	....	....	....	4	3	1	...	....	....	....	....	......	4
11	47	8	2	2	5	1	1	2	6	2	329	236	47	c23	3	1	4	1	14	329

[a] One case discharged for insanity.

[b] Dropped as general prisoner.

[c] Three deaths not included being the following cases from previous year: One perforating abdomen; one fracture of thigh, lower third; one penetrating knee joint.

D.—*Gunshot wounds which terminated fatally (exclusive of deaths not on sick report).*

Character and location of wound.	How received.					Nature of missile.									
		Not in action.				In action.				Not in action.					
	In action.	Accidental.	Suicidal.	Homicidal.	Total.	Mauser.	Remington.	Krag-Jörgensen.	Lantaca slug.	Krag-Jörgensen.	Missile not stated.	Revolver.	Explosion of rifle.	Explosion of primer.	Total.
Head, fracture	....	2	1	....	[a] 3	....	....	....	....	1	1	1	....	....	3
Spine, fracture	....	1	....	....	[b] 1	....	....	....	....	....	....	....	....	1	1
Thorax:															
Non-penetrating	1	....	....	....	[c] 1	....	1	....	....	....	....	....	....	....	1
Penetrating	2	2	....	....	[d] 4	1	....	....	1	2	....	....	....	....	4
Abdomen, penetrating	1	4	....	4	[e] 9	....	....	....	1	2	2	4	....	....	9
Arm, fracture	....	1	....	....	[f] 1	....	....	....	....	1	....	....	....	....	1
Fingers, fracture	....	1	....	....	[g] 1	....	....	....	....	....	....	1	....	....	1
Thigh:															
Flesh	....	1	....	....	[h] 1	....	....	....	....	....	....	....	1	....	1
Fracture, upper third	....	1	....	....	[i] 1	....	....	....	....	1	....	....	....	....	1
Fracture, middle third	....	....	....	1	[j] 1	....	....	....	....	1	....	....	....	....	1
Fracture, lower third	1	1	....	....	[k] 2	....	....	1	....	....	....	1	....	....	2
Knee joint	....	1	....	....	[l] 1	....	....	....	....	1	....	....	....	....	1
Total	5	15	1	5	26	1	1	1	2	9	3	7	1	1	26

[a] In one case elevation of depressed fragment of skull.

[b] Head of friction primer penetrated vertebral canal, crushing the cord; death second day.

[c] Wounded January 13, 1902; died January 18, 1902, of traumatic pneumonia and suppurative pleurisy.

[d] In one case wounded May 2, 1902: excision of portion of seventh rib in axillary line for drainage July 24, 1902; died of empyema July 28, 1902.

[e] Laparotomy in two cases; one died of acute suppurative cerebro-spinal meningitis.

[f] Wounded June 13, 1902; amputation of arm at shoulder joint June 16, 1902; died June 17, 1902, of septicemia and shock.

[g] Wounded June 14, 1902; septicemia developed June 19, 1902; died July 7, 1902.

[h] Died of hemorrhage and shock.

[i] Died of surgical shock.

[j] Wounded March 3, 1902; amputation at hip joint March 31, 1902; died same day of surgical shock.

[k] One of these wounded October 16, 1901; amputation right thigh at middle third February 5, 1902; flaps reopened and 2½ inches of femur removed April 29, 1902; remaining portion of necrotic femur removed June 10, 1902; died same day. In the other case, wounded April 30, 1902; immediate amputation middle third left thigh; died same day of hemorrhage and shock.

[l] Wounded October 27, 1901; died January 30, 1902, of chronic septicemia.

E.—*Surgical operations for gunshot wounds.*

Character and location of wound.	Operation.	Result.		
		Recovered.	Died.	Remaining last report.
Head, fracture	Elevation of depressed fragment of skull		1	
Face, flesh	Enucleation of eye	1		
Neck, flesh	Tracheotomy	1		
Thorax, penetrating	Bullet located by means of the X ray; removal from muscles of back.	1		
Do	Wounded May 2, 1902; excision of portion of seventh rib in axillary line with drainage of empyemic cavity July 24, 1902.		1	
Abdomen, penetrating	Laparotomy; intestinal wounds closed with Lembert sutures (2 perforations); abdominal cavity irrigated with normal saline solution.	1		
Do	Laparotomy June 12, 1902, for exploration of intestines for perforation; July 9, 1902, acute suppurative cerebro-spinal meningitis developed.		1	
Do	Laparotomy right inguinal region; removal of bullet and stitching of two superficial wounds of cecum.	1		
Do	Laparotomy; sutures applied		1	
Do	Laparotomy; abdomen at once opened, median line from ensiform cartilage to below umbilicus and two-thirds across right rectus; wound packed with gauze; abdomen closed with catgut; sterile gauze pad applied.		1	
Pelvis, fracture	Removal of fragment of bone 1 by ½ inch from crest of right ilium.	1		
Do	Removal of piece of brass jacket of Remington ball from ramus of ischium; also fragments of bone; curettage.	1		
Scapula, fracture	Bullet removed from muscles of back	1		
Shoulder, joint	Feb. 23, 1902, incision for drainage; Feb. 27, 1902, curettage of bullet tract; Apr. 19, 1902, several small fragments of necrosed bone from head of humerus removed.	1		
Arm, flesh	June 8, 1902, incision 1½ inches long over course of median nerve; band of cicatricial tissue cut and hematoma evacuated; July 30, 1902, extirpation of sac of traumatic aneurism upper portion of brachial artery after ligation above and below.	1		
Do	Operation for repair of musculo-spiral nerve	1		
Do	Operation for false aneurism of the brachial artery; aneurism exposed and artery ligated above and below.	1		
Arm, fracture	Amputation of arm at shoulder joint; died of septicemia.		1	
Elbow joint	Incision and removal of sequestrum, lower end of humerus.	1		
Do	Jan. 23, 1902, spiculæ of bone removed from shaft of humerus, and internal condyle disarticulated; Feb. 6, 1902, joint explored, abscess incised, and arm immobilized.	1		
Do	Resection of elbow; removal of olecranon process of ulna and lower third of shaft of humerus.	1		
Forearm, fracture	Amputation of forearm, upper third	1		
Do	Amputation of forearm, lower third	1		
Do	Amputation 1 inch above wrist	1		
Carpus and metacarpus fracture.	Operation for the correction of Dupuytren's contraction.	1		
Do	Removal of third finger and corresponding metacarpal bone.	1		
Do	Iron bolt ¾ inch diameter, 1½ inches long, removed from between fourth and fifth metacarpal bones.	1		
Do	Little finger and remaining fragments fifth metacarpal bone removed.	1		
Do	Incision and removal of fragments of bone from third metacarpal.	1		
Do	Fragments of bone removed from third metacarpal; external parts sutured.	1		
Finger, fracture	Finger amputation	35		
Thigh, flesh	Removal of bullet by incision	1		
Do	Incision 1 inch long, apex Scarpa's triangle; extraction of iron rod ⅝ by 1⅛ inches.	1		
Do	Removal of bullet and drainage of tract and space along Sartorius muscle.	1		
Thigh, fracture, middle third.	Wounded June 4, 1901; amputation at the hip joint by Lewis's method slightly modified, July 7, 1902; Oct. 18, 1902, removal of fragment of bone; Dec. 18, 1902, removal of buried drainage tube.	1		

E.—*Surgical operations for gunshot wounds.*

Nature of missile.									
Krag-Jörgensen.	Mauser.	Remington.	Springfield.	Revolver.	Lantaca slug.	Shotgun.	Cannon.	Missile not stated.	Explosion of cartridge.
....	....	....	....	1	....	....	....	....	....
....	....	....	....	....	....	....	....	....	1
1	....	....	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....
....	1	....	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....
1	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	1	....
....	....	....	....	....	....	....	....	1	....
....	....	....	....	....	....	....	....	1	....
....	....	....	1	....	....	....	....	....	....
....	....	1	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....
....	1	....	....	....	....	....	....	....	....
....	1	....	....	....	....	....	....	....	....
1	....	....	....	....	....	....	....	....	....
....	....	....	....	1	....	....	....	....	....
1	....	....	....	....	....	....	....	....	....
1	....	....	....	....	....	....	....	....	....
....	....	1	....	....	....	....	....	....	....
1	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	1	....	....
1	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	1	....	....
1	....	....	....	....	....	....	....	....	....
1	....	....	....	....	....	....	....	....	....
....	....	....	....	....	1	....	....	....	....
1	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	1	....
1	....	....	....	....	....	....	....	....	....
21	....	....	....	6	....	3	1	4	....
....	1	....	....	....	....	....	....	....	....
....	....	....	....	....	1	....	....	....	....
....	....	....	....	1	....	....	....	....	....
1	....	....	....	....	....	....	....	....	....

E.—*Surgical operations for gunshot wounds*—Continued.

Character and location of wound.	Operation.	Result.		
		Recovered.	Died.	Remaining last report.
Thigh, fracture, middle third.	Wounded Mar. 3, 1902; amputation at hip joint Mar. 31, 1902; died same day of surgical shock.	......	1	......
Thigh, fracture, lower third.	Wounded Oct. 16, 1901; amputation of thigh, middle third, for necrosis, Feb. 5, 1902 (as noted in last annual report); Apr. 29, 1902, flaps severed and 2½ inches of femur removed and sinuses curetted; June 10, 1902, remaining portion of necrotic femur removed at hip joint; died June 10, 1902, of osteomyelitis.	......	1	......
Do	Aug. 15, 1902, wound enlarged and 9 small pieces of bone from shaft of femur and condyle removed, fragments coaptated, wound packed with bichlorid gauze and felt splints applied; Sept. 22, 1902, fenestrum cut through external surface of femur with chisel, liberating pus; Dec. 14, 1902, incision (through scar of former operation) 2½ inches long down to bone; 2 holes drilled through femur to cavity, holes ½ inch apart, intervening bone chiseled out, drainage tube inserted, and wound packed.	......	......	1
Do	Sinus opened and irrigated; spicula of bone removed	1	......	......
Do	Wounded Apr. 30, 1902; immediate amputation, middle third; died day of injury of hemorrhage and shock.	......	1	......
Leg, flesh	Incision 4 inches long median line posterior surface, part of gastrocnemius found to be broken down and removed. Drainage.	1	......	......
Do	Feb. 25, 1902, incision 3 inches long, outer margin of tendo Achilles, bullet probed for but not found; Aug. 6, 1902, bullet located by X ray between tibia and fibula, and removed.	1	......	......
Do	Removal of cast-iron slug, cuboidal in shape, 1 by 1¼ inches.	1	......	......
Leg, fracture	Wounded Dec. 12, 1901; incision with removal of fragment of bullet and sequestrum of bone, Aug. 22, 1902.	......	......	1
Do	Incision and curettage	1	......	......
Do	Amputation of leg, middle third	1	......	......
Do	Amputation 4 inches below knee joint, lateral musculo-cutaneous flaps.	......	......	1
Do	May 9, 1902, entrance wound enlarged and counter opening made in front of fracture; July 22, 1902, piece of bone 1 inch long removed; Aug. 14, 1902, removal of bullet.	1	......	......
Tarsus and metatarsus, fracture.	Removal of second toe and corresponding metatarsal bone.	1	......	......
Toes, fracture	Amputation of great toe at metatarso-phalangeal joint.	1	......	......
Total		72	9	3

E.—*Surgical operations for gunshot wounds*—Continued.

Nature of missile.									
Krag-Jörgensen.	Mauser.	Remington.	Springfield.	Revolver.	Lantaca slug.	Shotgun.	Cannon.	Missil not stated	Explosion of cartridge.
1									
1									
	1								
				1					
				1					
				1					
				1					
					1				
								1	
		1							
1									
				1					
								1	
1									
1									
38	5	3	1	17	3	3	3	10	1

SURGICAL OPERATIONS FOR DISEASE AND INJURY.

During the calendar year 1902, 608 of the more important surgical operations were reported by medical officers of the Army as having been performed by them on officers and enlisted men, and the following list indicates what a highly creditable part the Medical Department is taking in modern surgical work.

Numerous minor procedures, such as operations for hemorrhoids, incisions for abscess, extirpation of buboes, circumcisions, etc., have not been included, nor does the list comprise those operations following gunshot wounds already noticed under that heading. Many important and some brilliant operations on civilians were performed by army surgeons, including a large amount of gynecological work, but do not appear in this enumeration.

Out of the 608 operations listed, 587 recovered and 21 died.

The radical operation for hernia is second on the list in frequency and is a regular procedure in suitable cases. A large number of medical officers have attained great skill in this special operation, and many valuable men who would otherwise be lost by discharge are annually saved to the service. No death occurred as a result of 152 operations for hernia during the year, but in one case an intercurrent attack of measles unfortunately resulted fatally.

Out of 268 cases of appendicitis operation was performed 84 times, with 5 deaths. All fatal results were in cases of a specially serious nature. One was operated upon during typhoid fever, one was complicated by tubercular peritonitis, a third operation disclosed gangrene of the cecum and two remaining fatal cases were of the acute suppurative variety. Four men were discharged after operation on certificates of disability, 3 by expiration of enlistment, and 72 were eventually returned to duty. Among these last there were 50 simple appendectomies, 7 where the diagnosis was "ulcerative appendicitis," in 10 formation of abscess, and in 5 acute gangrenous perforation.

The literature of appendicitis is so voluminous that it does not seem necessary to quote the special reports received of the above operations, but results shown are exceedingly satisfactory and compare favorably with the statistics of the leading surgeons of the country.

Other abdominal operations were 19 incisions for hepatic abscess, with 14 recoveries, 2 cholecystotomies, and 4 operations on the intestines for adhesion, strangulation, or fecal fistula.

The chest wall was incised for empyema on 9 occasions, with 5 resections of rib, 1 case resulting in death.

Thirty-four amputations for disease and injury other than gunshot were performed, 1 at the hip joint, 1 at the knee joint, 4 of the leg, 1 of the foot, 1 at the shoulder joint, 2 of the arm, and 24 fingers and toes. One patient died after amputation of the arm from traumatic gangrene, and 1 succumbed to shock following amputation at the hip joint for osteo-sarcoma.

The formidable operation of amputation at the hip joint was done in all three times during the year, once for disease and twice following gunshot, as follows:

I. U. S. Army general hospital, Presidio of San Francisco, Cal.; operator, Col A. C. Girard, assistant surgeon-general, U. S. Army. J. W. S., corporal, Company A, Tenth Infantry. First noticed hard swelling right thigh, with pain referred to the knee joint, while a patient in the military hospital at Honolulu, Hawaii. Size gradually increased. Upon examination a fixed tumor was defined attached to the femur at the upper third. Patient presented a cachectic appearance. Skiagraph showed spindle-shaped involvement of the shaft of the femur. Diagnosis of osteosarcoma of periosteal type was made and amputation at the hip joint performed January 8, 1902.

Lateral incision 6 inches in length was made over the great trochanter. Disarticulation effected and rubber tourniquet applied about the body, crossing anteriorly and posteriorly, and passed around the body. Skin flaps were dissected and amputation completed. Vessels ligated, sheaths of muscles sutured with catgut, and large rubber drainage tube was inserted laterally and skin closed with interrupted silkworm gut sutures.

Before operation the body and extremities were enveloped in cotton batting to maintain the body heat, and Esmarch's bandage was applied from head to foot. Patient suffered greatly from shock, requiring frequent hypodermatic stimulation during the operation and infusions of salt solution afterwards.

Patient died at 1.40 p. m., January 9, 1902, not recovering from surgical shock.

II. Manzanillo, Cuba; operator, Capt. W. H. Block, assistant surgeon, Volunteers. J. C., private, Troop M, Tenth Cavalry. The patient, a syphilitic undergoing treatment in hospital, absented himself without leave, obtained a carbine, and was terrorizing a saloon, when the sergeant of the guard, as the only way to disarm him, fired at him. The bullet (.30-caliber Krag-Jörgensen) fractured the femur at middle third and caused a very severe wound. This was March 3, 1902, and on March 31 amputation at the hip joint was performed. Death from shock resulted the same day.

III. U. S. Army general hospital, Washington Barracks, D. C.; operator, Maj. W. C. Borden, surgeon, U. S. Army. F. H., trumpeter, Troop C, Eighth Cavalry, was admitted to hospital June 17, 1902, suffering with anchylosis of the left hip and knee joints, deformity of the left hip joint, shortening of the limb, and suppurating wounds of left thigh, resulting from an accidental gunshot wound of the thigh at Fort Sill, Okla., June 4, 1901.

Amputation of the affected part at the hip joint was indicated, and on July 7, 1902, the operation was performed, Senn's method being employed. A long incision was made over the great trochanter and carried down to the bone. By means of the periosteal elevator and the knife the muscular attachments about the trochanters and the upper part of the shaft were severed, and by strong adduction the head of the bone was made to project from the incision. This was unusually difficult because of the deformity of the parts—the neck of the bone springing from the shaft at a right angle. It was found necessary to strongly rotate the thigh inward before the ligaments could be severed. The operator then introduced a stout pair of forceps, carrying the middle of a heavy rubber tube into the wound and gently pressed them through the tissues until they appeared beneath the skin on the internal surface of the thigh at the level of the lesser trochanter. The forceps were then removed, the middle of the tube cut, and the two pieces resulting were tied around the anterior and posterior flaps, respectively, both of these being on the inner side of the femur, which emerged from the wound and was not included in either flap. The amputation was completed by circular sweep of the catlin at the level of the lower extremity of the first incision. All vessels were ligated with kangaroo tendon, a few comminuted fragments of bone removed, the tubes removed, all bleeding checked, and the wound closed by silkworm gut sutures. Through-and-through drainage was secured by a small tube. The patient was much depressed after the operation, but rallied well and made a comparatively uneventful recovery. The drains were removed on the sixth day, and an attack of malaria, which developed on July 25, was promptly abated. A small fragment of bone was removed from the cicatrix on October 8, 1902.

Surgical operations, 1902.

Nature of operation.	Disease or injury	Recovered.	Died	Remarks.
Removal of foreign bodies, bullets...	Old shot wounds	3	...	Scapula 1, wrist 1, axilla 1.
Operations on the eye:				
Pterygium	....	10	...	
Cataract	....	1	...	
Strabismus	....	1	...	
Operations on the ear:				
Paracentesis	Otitis media 3, mastoiditis 1.	4	...	
Excision of bone	Otitis media	1		

Surgical operations, 1902—Continued.

Nature of operation.	Disease or injury.	Recovered.	Died.	Remarks.
Operations on the nose:				
Removal of polypi		1		
Restoration of bone	Old, depressed fracture	1		
Broadening	Saddle nose	2		Paraffin prosthesis.
Operation on arteries: Ligation	Shot wound	1		Radial artery.
Operations on veins:				
Varicocele		164		
Varicose veins		22		
Operations on respiratory organs:				
Tracheotomy		1	1	
Empyema		8	1	Resection fifth rib.
Operations on digestive organs:				
Herniotomy	Inguinal 148, scrotal 1, ventral 2, umbilical 1.	151	1	Death from measles.
Fistula in ano		18		
Hepatic abscesses		14	5	Incision and drainage.
Cholecystotomy		1	1	
Enterorrhaphy			1	
Appendectomy		79	5	
Laparotomy	Intestinal adhesion 2, strangulated intestine, 1.	2	1	
Operations on urinary organs:				
Stricture of urethra		5		Internal urethrotomy 4, external 1.
Nephrotomy	Nephritis	1		
Cystotomy	Pyelitis		1	
Operation on generative organs:				
Removal of testicles	Traumatic 3, sarcoma 3, tuberculosis 3, gonorrhea 1.	10		
Amputation of penis	Epithelioma	1		
Hydrocele		4		
Operations on bones:				
Ununited fractures	Fractures, not shot	11		Wiring.
Resection	Dislocation	1		Ulna at wrist.
Trephining	Fracture, not shot	3	2	Parietal.
Removal of bone	Disease 14, injury 6	20		
Incision	Periostitis	1		Head of tibia.
Operations on joints:				
Removal of loose bodies	Cartilage	2		Knee joint 2.
Aspiration	Synovitis	2		Do.
Incision	Arthritis	2		Knee joint 1, elbow joint 1.
Operations on muscles: Tenotomy	Deformity 3, injury 3	6		
Operations on limbs, amputation for injury:				
Leg	Frostbite 1, fracture 3	4		Secondary.
Foot	Infected wound	1		Hay's secondary.
Toe	Fractures 3, incised 1	4		
Shoulder joint	Fracture	1		Secondary.
Arm	Fracture 1, dislocation 1	1	1	Primary 1, secondary 1.
Finger	Incised 4, laceration 5, fracture 5, infected wound 1.	15		Primary 8, secondary 7.
Amputation for disease:				
Hip joint	Osteo-sarcoma		1	
Knee joint	Periostitis	1		
Toes	Deformity 4, abscess 1	5		
Operations on skin, etc.: Skin grafting	Indolent ulcer	1		

THE GENERAL HOSPITALS.

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

During the calendar year 1902 there were 32 officers admitted for treatment, of whom 22 were on the active list of the Army and 3 retired, 2 on the active list of the Navy and 3 retired, 1 officer of Philippine Scouts, and 1 from the Public Health and Marine-Hospital Service. In all, 372 cases were admitted, compared with 407 in 1901. They were classified as follows: Rheumatism in various forms, 222;

diseases of digestive system, 41; of nervous system, 15; of the kidneys, 6; malarial fever and cachexia, 14; other diseases, 74.

The construction of this hospital was begun in 1883 and completed in 1885. It remained as originally designed up to November, 1899, when an elaborate scheme for its reconstruction was matured and carried out by the commanding officer, Maj. George H. Torney, surgeon, U. S. Army, whereby the hospital was practically rebuilt.

The bath house of the hospital is a large one-story structure of the same general design as the other buildings, and is divided into two bathing establishments, one for officers and the other for enlisted men under treatment. The officers' bath occupies about one-third of the building and has, first, a dressing room, with five individual compartments and a lounging room; second, the bath proper, with four individual rooms, two vapor chambers, and a hot room, these are tiled and faced with marble throughout; third, the douche room, with all the appliances of a modern hydropathic establishment.

The baths for enlisted men occupy the remainder of the large building and are similar to the officers' baths, but on a larger scale. The grounds and roads of the institution are in perfect condition. The buildings are connected with wide galleries and surrounded by verandas which may be closed by glazed sashes in cold weather. There is an entirely modern kitchen and laundry, an ice machine, a steam-heating system, and an electric-light plant. Altogether this hospital, with a capacity of 130 beds, is as complete in every respect as the most elaborate institutions of like nature anywhere.

UNITED STATES GENERAL HOSPITAL, FORT BAYARD, N. MEX.

During the fiscal year ending June 30, 1903, 506 cases of tuberculosis were treated, of whom 150 cases were in the hospital June 30, 1902. Every patient is thoroughly examined, physically, at time of admission and at regular intervals thereafter; in all, 1,537 physical examinations are of record during the year.

SUMMARY OF CASES.

	Per cent.
Cases treated during the year	506
Cases in hospital June 30, 1902	150 = 29.64
New and readmitted cases	356 = 70.36
Cases discharged improved	157 = 31.03
Cases discharged unimproved	73 = 14.43
Cases remaining improved	124 = 24.50
Cases remaining unimproved	89 = 17.59
Deaths during the year	63 = 12.45
Total number of cases improved	281 = 55.53
Total number of cases unimproved	162 = 32.02

Of the 356 cases, new and readmitted during the year, there were:

	Per cent.
Discharged improved	84 = 23.59
Discharged unimproved	50 = 14.04
Remaining improved	95 = 26.69
Remaining unimproved	75 = 21.06
Total improved	179 = 50.27
Total unimproved	125 = 35.11
Deaths	52 = 14.60

Of the 150 cases in the hospital June 30, 1902, there were:

	Per cent.
Discharged improved	73=48.67
Discharged unimproved	23=15.33
Remaining improved	29=19.33
Remaining unimproved	14= 9.33
Total improved	102=68.00
Total unimproved	37=24.67
Deaths	11= 7.33
Cases now remaining in hospital	213
Number showing improvement	124=58.21
Number not showing improvement	89=41.79

These figures are based upon the progress of lung lesions as shown by the physical examinations. Only cases in which the lesion is less than at the time of the first examination are recorded as improved. A large number of patients are received in whom the tubercular process has so far advanced that any improvement is impossible. Another large percentage of the patients admitted, who have their discharges on surgeon's certificate of disability, leave the hospital before they have been there a long enough time to secure more than slight benefit from the treatment received. Those who become beneficiaries of the United States Soldiers' Home are, under the rules of the Soldiers' Home, at liberty to leave the hospital and return at will. This allows many men who have begun to show improvement to leave the hospital and remain away until their condition is so bad that they are obliged to return for treatment. When they have again become slightly improved they are at liberty to again leave the hospital. These facts tend to neutralize the beneficial results which might otherwise be recorded as a result of treatment.

The report of the laboratory shows that 3,047 examinations of sputum were made, and tubercle bacilli found present in 936. No case entering the hospital is recorded as negative for tubercle bacilli until ten samples of sputum have been carefully examined. In negative cases if there is any expectoration persisting the examination is again repeated every two months during the patient's stay at the hospital.

During the year sputum was examined from 356 new and readmitted cases. Of these, 284 showed the presence of tubercle bacilli during the first 10 examinations of the sputum. In 67 cases the bacillus was not present, though the physical signs gave evidence of disease. In only 6 cases when the tubercle bacillus was not found during the first 10 examinations was it found subsequently. In but 5 of the cases where the bacillus was found during the first 10 examinations was it permanently absent from the sputum before the close of the year or before the patient was discharged from the hospital.

Five cases admitted to the hospital have had no expectoration.

Of the 150 patients remaining in hospital June 30, 1902, the tubercle bacillus could not be demonstrated in 30. In 120 it was present. In 4 of the cases in which the bacillus could not be found it was afterwards demonstrated. In 12 cases where it was present subsequent examinations failed to detect it.

Examinations of the urine to the number of 1,362 were made and 1,312 blood examinations. It is interesting to note that the average hemoglobin percentage as shown in 100 consecutive examinations is 90.3. This average, a higher one than is usually found among well persons in ordinary life, is in part attributable to the altitude and climatic conditions, and in part to the regular manner of living and the character and quantity of food used by the patients. The numerical count of red blood corpuscles closely corresponds with the hemoglobin percentage.

Lieutenant-Colonel Comegys, deputy surgeon-general, U. S. Army, who has commanded the hospital since November, 1902, states his belief that consumption when treated early enough can either be cured or materially benefited by open-air life, generous diet, and regular habits.

U. S. ARMY GENERAL HOSPITAL, WASHINGTON BARRACKS, D. C.

At this, which also serves as post hospital for Washington Barracks, 542 cases were treated during the fiscal year—377 medical and 165 surgical cases. In the surgical service 116 of the more important operations were performed, including 45 operations for hernia of various kinds and 14 appendectomies.

The work of construction at Washington Barracks, now well under way, will render the removal of the general hospital imperative in the near future. Plans for the War College and Engineer School contemplate a new building on the present site of the hospital. It has been proposed to move the present building and use it as a post hospital during the construction work, and for this purpose it is neither too large nor too good.

It is inadequate in size for a general hospital, however, and, being largely built of timber it has shrunk and settled until it is no longer possible to maintain it in the perfect sanitary condition absolutely necessary where aseptic operations are to be performed.

The building is about ten years old and cost less than $40,000. It is always crowded, so that nurses must be lodged outside, and there are no private rooms for officers or special cases. The location is not suitable, even if it were possible to retain the site, as the ground is low and the heat excessive in summer.

The company of instruction of the Hospital Corps is quartered in temporary wooden pavilions, in bad repair, which were built during the war with Spain and are now worthless for any purpose.

I repeat most earnestly my previous recommendation that a general hospital of sufficient size and perfect in every respect be built in the District of Columbia for the following purposes:

First. Treatment of cases needing the services of specialists, surgical or other observation, and treatment of officers incapacitated for service prior to their appearance before retiring or examining boards.

Second. Training enlisted men of the Hospital Corps in nursing and military duties.

Third. Instruction at the Army Medical School in military surgery, hospital administration, Hospital Corps drill, and establishment of field hospitals.

Fourth. To serve as a nucleus around which, in time of war, temporary wards may be erected without delay to any extent and at minimum expense.

Sketch plans are now in course of preparation for such a hospital, the establishment of which means so much to the Medical Department and the Army at large that it is hard to express the disappointment felt at the failure to obtain the requisite appropriations from the last Congress.

A conservative estimate of the money saved the United States by the successful surgical operations at this hospital since its establishment, September 8, 1898, to February 17, 1903, has been made, and it is shown that 31 officers completely incapacitated have been operated upon and restored to duty, whose retired pay would have been very nearly $60,000 a year, and that 216 enlisted men have been returned to duty after operations for disability, whose pensions, had they been discharged, would have amounted to nearly $28,000 a year. The institution has, therefore, already paid for itself many times over from its surgical work alone, while its value as an essential part of the instruction of young medical officers and enlisted men of the Hospital Corps can not be estimated.

U. S. ARMY GENERAL HOSPITAL, PRESIDIO OF SAN FRANCISCO, CAL.

Because of the reduction of the size of the army in the Philippine Islands, and, in consequence, the decreasing number of sick who have returned to the United States, the demands on this hospital have diminished and are not so great to-day as they were a year ago. Instead of keeping several barracks in the Presidio proper as additional wards to the hospital, in which the overflow might be treated, two of these barracks have been given up and have been returned to their proper use for the permanent garrison of the Presidio. But a single ward has been retained and one barrack used as a dormitory for the Hospital Corps.

The hospital, with all its buildings, has been maintained in first-class repair from allotments that have been made from time to time, and the grounds around it have been kept up in a manner to add to the general appearance of the place. Economy has been practiced in every possible respect. The furnaces at the power plant have been relined; a No. 4 Wagner pump for the ice machine has been installed; the interior of one double set of officers' quarters has been repainted; three wooden buildings, used temporarily as storerooms, have been moved to clear the ground for the erection of a new storehouse, and two engines at the power plant have been overhauled and repaired. Repairs to the hot-water tank were made by the chief quartermaster of the department. The following are now in process of construction and should all be finished within the next six months: A new operating pavilion; an additional barrack for Hospital Corps, the exact counterpart of the building used for that purpose at present; a new surgical dressing room between wards D and E; a new storehouse for the accommodation of medical, quartermaster, and commissary supplies; a new large addition to the mortuary, in the shape of a strictly modern post-mortem room, and a new pathological, bacteriological, and chemical laboratory on the second floor of the administration building.

The following numerical statement shows the work of the hospital during the fiscal year:

Cause.	From Philippine Islands.	From posts in United States.	Total.
Remaining in hospital June 30, 1902	195	207	402
Total admissions during past year	1,856	1,168	3,024
For gunshot wounds	32	13	45
For diarrhea and dysentery	940	184	1,124
For malarial fevers	105	58	163
For typhoid fever	16	16	32
For rheumatic affections	57	32	89
For venereal diseases	87	158	245
For alcoholism	5	9	14
For injuries	48	103	151
For insanity	81	17	98
All other causes	485	578	1,063
Total returned to duty	1,079	775	1,854
Rate per 1,000 of admissions	581.36	663.53	613.09
Total discharged for disability	254	115	369
Rate per 1,000 of admissions	136.85	98.46	122.03
Deaths from all causes	38	36	74
Rate per 1,000 of admissions	20.47	30.82	24.47
Desertions	44	14	58
Sent to Hospital for Insane, Washington	73	11	84
Sent to general hospital, Fort Bayard	73	22	95
Sent to general hospital, Hot Springs	38	16	54
Otherwise disposed of	319	280	599
Remaining in hospital June 30, 1903	133	106	239

Two hundred and twenty-one important surgical operations were performed, including 24 radical operations for hernia, all successful, 17 appendectomies with 1 death, and 13 operations for hepatic abscess; 8 in which the abscess was single recovered, 1 where the abscesses were multiple recovered and 4 died. The technique of these last operations by which such gratifying results were obtained is thus described by Maj. W. P. Kendall, surgeon, U. S. Army, commanding the hospital:

Having experienced difficulties at times in locating the abscess, and even failing altogether to find it, the method was finally adopted of making an exploratory incision upon the right side about an inch or an inch and a half below the border of the costal cartilage and parallel with it, of some 3 inches in extent. Through this it was possible to explore the liver thoroughly, and to determine its exact location. When situated upon the lower surface and easily reached, the abdominal cavity having been thoroughly walled off with gauze, the abscess was opened with an ordinary pair of hemostats, and drained through this incision. When, however, it was situated high or posteriorly, this exploratory incision was sewed up and an exsection of the seventh rib in the anterior axillary line was made, through which, the capsule having been sewed to the wall, the abscess was opened, either with forceps or thermocautery, and with tube and gauze drained as in the other case.

In view of the fact that one multiple and all of the single abscesses were saved, the procedure seems to have been a good one. Of the 4 cases which died all were multiple abscesses, the number ranging from 3 to 30.

It is true that in this operation there is added to the thoracotomy the other operation of exploration, but it is a recognized fact that the theoretical exploration of the liver with a needle is often unavailing in the effort to locate the abscess, while through the incision mentioned it is easy to locate definitely its situation. It seems to be the scientific procedure, based, as it is, upon the certain knowledge of the operator of what he is doing. All operations in which he does not know this must be regarded with more or less suspicion. The practicability of draining an abscess from the under surface of the liver through this anterior incision after the abdomen has been walled off is an established fact, the reason for it being probably that such a large percentage of these abscesses are practically sterile.

There were treated 313 cases of disease of the eye, with 17 operations; 124 cases of disease of the ear, with 1 operation, and 268 affections of the nose and throat, with 37 operations. These were all hospital patients, but in addition 188 cases of these special troubles were treated among officers, members of their families, etc., from the city and neighboring posts.

During the year 127 radiographs have been taken, and, while sometimes wanting in distinctness, they have proven of inestimable value in the diagnosis of fractures and in locating lodged foreign bodies.

In the pathological laboratory the following work has been done:

Examinations of blood	3,308
Examinations of urine	4,588
Examinations of feces	1,453
Examinations of sputa	1,186
Blood counts	548
Widal tests	68
Cultures for diphtheria	48
Malta fever tests	9
Feces for cholera spirillum	6
Sections of post-mortem material	254
Miscellaneous	35

Besides the above examinations, which were made during the routine work of the hospital, there were 512 examinations from outside sources, comprising the substations of the Presidio, surrounding stations, and department headquarters.

These examinations were divided as follows:

Examinations of blood	105
Examinations of urine	325
Examinations o sputa	32
Miscellaneous	50

Of the 1,453 specimens of feces examined, amebæ were found in 182, and the ova of uncinaria in 10.

In 7 autopsies on bodies of men dying with chronic amebic dysentery, liver abscesses were found as follows:

Case 1.—Six abscesses: Right lobe of liver, 5; left lobe, 1.
Case 2.—Two abscesses: Right lobe of liver, 2; left lobe, 0.
Case 3.—Seventeen abscesses: Right lobe of liver, 16; left lobe, 1.
Case 4.—Thirty abscesses: Right lobe of liver, 23; left lobe, 7.
Case 5.—Three abscesses: Right lobe of liver, 3; left lobe, 0.
Case 6.—Four abscesses: Right lobe of liver, 4; left lobe, 0.
Case 7.—One abscess between right and left lobes.

First Lieut. Charles F. Craig, assistant surgeon, U. S. Army, the pathologist of the hospital, also remarks:

> One has only to glance at the above table to be impressed with the fact that most liver abscesses are situated primarily in the right lobe of the liver. Even in those cases which show multiple abscesses the right lobe showed a preponderance in number and also in the age of the abscess, thus proving that the primary starting point of abscess formation in these cases was in the right lobe. In every case showing abscess formation in the right lobe at least one abscess was found at the dome, and invariably these abscesses were the oldest ones present in the liver, as shown by the size and the greater thickness of the fibrous wall.

FIRST RESERVE HOSPITAL, MANILA, P. I.

This hospital was built by the Spanish authorities many years prior to the Spanish-American war, and can in no sense be considered a model of hospital construction, in which every essential detail should be supplied for the care and treatment of the sick of the Army in accordance with modern methods, but is in fact a shabby substitute therefor. The floors are uneven, the joists rotten and ant-eaten, and the whole establishment infested with vermin. To remedy these conditions and make the hospital what it should be, the commanding officer forwarded estimates for the cementing of all floors, the removal of the roofs of the entire establishment, and the construction of a second story on the walls of the existing buildings, with lavatories, bath rooms, water-closets, and perfected sewerage system, kitchens, mess rooms, store rooms, etc. The estimated cost amounted to over a quarter of a million dollars. These estimates were forwarded by the chief surgeon of the division, recommending disapproval, as it seemed to him that there could be no economy in expending so much money in an effort to transform the shells of the old Spanish buildings into a modern hospital. Moreover, the site is not suitable for an establishment of the kind. It is low, poorly drained, and exposed to the dust and traffic of the busy streets which bound it on two sides. It answers its purpose temporarily, but is not a credit to the Medical Department of the Army. A well-equipped general hospital is necessary near Manila, and could be built at far less expense than that required for the reconstruction of the buildings now in use.

Meanwhile much-needed improvements have been made to the hospital, consisting chiefly of an addition to each of the seven wards and the installation therein of water-closets, urinals, slop sinks with suitable water and sewer connections, and the construction of a 6,000-gallon tank for the purpose of securing a constant supply of water during the morning hours, when the pressure in the city mains is reduced. Estimates were approved for modernizing and perfecting the operating room, for the installation of electric fans, for the construction of a sanitary chemical laboratory, for painting and whitewashing, and for the repairs and improvement of concrete sidewalks, gutters, roofs, etc.

The movement of sick through this hospital is shown in the following tabulation:

Patients July 1, 1902, to May 31, 1903.

In hospital July 1, 1902	255	
Cases received	3,587	
		3,842
Returned to duty	1,727	
Died	72	
Transferred to other hospitals	736	
Transferred to United States	973	
Discharged	14	
Otherwise disposed of	38	
		3,560
Remaining		282

Ward No. 1 constitutes the ophthalmological and nose and throat departments of the hospital, and during the period there were treated 378 cases, viz: Eye, 197; ear, 156; nose and throat, 25. In addition to these, a large number of out-patients were treated, as follows: Eye, 606; ear, 279; nose and throat, 287.

In the surgical ward 571 cases were admitted, and in 199 of them surgical intervention was necessary. Seven died, 2 from liver abscess, and 1 each from appendicitis, gunshot wound of the intestines, sarcoma of the intestines, tuberculosis, and tetanus, while 370 were returned to duty. Among the more important surgical operations were 53 radical operations for hernia, with no death; 25 appendectomies, with 1 death, and 6 cases of liver abscess incised and drained, with 2 deaths.

In the dysentery ward 705 completed cases were recorded, 150 of these having been returned to duty, 301 transferred to the United States, 234 to other hospitals, while 20 ended fatally. Of the 503 cases of dysentery treated, 4 cases were specific dysentery, 238 amebic dysentery, and 261 cases from which neither clump reaction nor amebæ dysenteriæ could be obtained. As there were but 4 cases of specific dysentery, and as the patients came from all parts of the islands, it may be said that except for sporadic cases the Philippines have been free from this disease during the past year.

The pathological and bacteriological work of the hospital was conducted in the most satisfactory way by Lieut. Herbert M. Smith, assistant surgeon, U. S. Army. It included the following:

Blood examinations	1,117
Positive as follows:	
Tertian malaria (ordinary)	142
Estivo-autumnal malaria	76
Hemoglobin estimations	18
Serum reaction Malta fever	3
Serum reaction typhoid fever	16
Serum reaction specific dysentery	8
White blood count	247
Red blood count	69
Differential count	25
Urine examinations	1,031
Positive as follows:	
Albumen	229
Sugar	68
Casts, leukocyte	19
Casts, red blood corpuscles	11
Casts, hyaline	118
Casts, granular	71
Casts, epithelial	12
Casts, mixed	11
Urea determinations	43
Diazo reactions	21
Gonococci	26
Sputum examinations	550
Positive as follows:	
Tubercle bacilli	97
Micrococcus lanceolatus	20
Miscellaneous	100
Stool examinations	2,088
Positive as follows:	
Ameba dysenteriæ	574
Ameba coli	99
Ameba dysenteriæ and ameba coli	14
Uncinaria duodenalis	82
Trichuris trichiura	94
Ascaris lumbricoides	42
Tenia saginata	3
Strongyloides intestinalis	10
Vibrio choleræ Asiaticæ	7
Pus examinations	78
Positive as follows:	
Eye, gonococcus	8
Urethra, gonococcus	7
Knee joint, staphylococcus pyogenes albus	1
Carbuncle, streptococcus pyogenes	1
Liver abscess, ameba dysenteriæ (out of 8)	1

Water examinations, bacteriological, complete	50
As follows:	
Quartermaster's distilling plants, Manila	16
Water boat Charleston	2
First Reserve Hospital distilling plant	21
Artesian well insular ice plant	2
Malate Barracks distilling apparatus	4
Artesian well, Bayambang	3
Artesian well, Fort McKinley	-
Tissue examinations, clinical. Tissues from the surgical operating rooms are all examined and fully reported upon.	
Necropsies	66

Full pathological and bacteriological reports with microscopical diagnoses are made in each case and embodied in the monthly report of sick and wounded of the hospital.

During the dengue epidemic, July to October, 1902, numerous fresh-blood preparations and blood cultures were made from the dengue-fever patients, all giving uniformly negative results.

At the request of Capt. E. L. Munson, assistant surgeon, U. S. Army, board of health, Manila, with a view of finding a safe solution for disinfection of fruits in the Manila markets, experiments were made with cholera cultures to determine the lowest safe percentage of hydrochloric-acid solution required to destroy this organism with an exposure of about two minutes. The test showed that a seven-tenths per cent solution would destroy the organisms in the time desired.

At the request of the Surgeon-General, experiments were made with cholera-infected water to determine the efficiency of the Forbes water sterilizer. Water heavily charged with fresh cultures of the cholera spirillum was passed through the sterilizer and numerous cultures were made of the water discharged. In no instance was the cholera organism present in the sterilized water. Only the hay bacillus was recovered.

The work of the sanitary chemical laboratory has been conducted since February, 1903, by Lieut. Robert Smart, assistant surgeon, U. S. Army. The laboratory was established in one end of one of the storehouses of the medical supply depot adjoining the hospital, but owing to changes ordered in the location of buildings of this depot the laboratory had to be discontinued March 20, 1903. Estimates have been approved for a building on the grounds of the hospital to be used as a chemical laboratory. During the short period of its installation in the medical supply depot 42 water analyses were made, among which were water samples from Fort William McKinley, post of Manila; Batangas, Batangas; Calumpit, Bulacan; Camp Jossman, Guimaras; Camp Gregg, Bayambang, Pangasinan; Camp Morrison, Salomague, Ilocos Sur; and Pasay Barracks, Manila. An analysis of the water supply of the city of Manila was made twice a week and the report transmitted to the commissioner of public health for his information. Four samples of milk were analyzed—human, 2; condensed, 2. Two samples of commissary jam were submitted as having been the probable cause of lead poisoning in the cases of soldiers using them, and one examination of a stomach and contents for suspected alkaloidal poisoning was made.

HOSPITAL NO. 4, MANILA, P. I.

Hospital No. 4 was established April 3, 1902, in some unoccupied buildings at Santa Mesa Barracks, but on April 20 was transferred to hospital tents near the smallpox hospital, the two constituting a contagious disease hospital for the troops in and in the neighborhood of the city of Manila. It consists of a large frame nipa-roofed building and 14 hospital tents. The former is divided into 2 wards of 20 beds each and 2 small rooms, one of which is used as a dispensary and the other as a laboratory. The kitchen and dining room are housed in a small frame building with galvanized-iron roof. The tents accommodate the hospital staff and cases of contagious diseases.

The cases treated during the eleven months ended May 31, 1903, were as follows:

	Cases treated.	Recovered.	Died.
OFFICERS.			
Variola	1	1	
Cholera	1		1
ENLISTED MEN.			
Cholera	80	43	37
Cholera morbus	1	1	
Variola	4	3	1
Measles	1	1	
Dysentery	2	2	
Diarrhea	13	13	
Sprue	1	1	
Gastro-enteritis	3	3	
Dyspepsia	12	12	
Malaria	1	1	
Parotitis	1	1	
CIVILIANS.			
Cholera	14	7	7
Variola	1	1	
Dyspepsia	1	1	
Diarrhea	4	4	

All except the other contagious diseases were sent to this hospital as cholera or suspected cases of cholera. The cases of measles and mumps were imported from the United States on the transport *Thomas*. The cases of smallpox gave the members of the hospital corps an opportunity to show their mettle. They displayed the devotion to duty which is characteristic of high-class men. According to First Lieut. William W. Reno, assistant surgeon, U. S. Army, sundry experiments were tried to avert or ameliorate the dangerous pustular stage of the disease, with partial success. The best method found was to evacuate the vesicle and irrigate often with a weak corrosive-sublimate solution. When large areas are treated it is necessary to apply bandages freely to protect the parts. Evacuation of the pustule was of no benefit whatever, except after the pus had become caseous. At that time evacuation seemed to hasten the disappearance of the lesion. Remedial agents directed against pitting were of no avail. In 3 cases the pitting was general and pronounced, and in 2 cases there were no pits. Of the 6 cases of smallpox 5 had not been successfully vaccinated in years, and the sixth was uncertain.

STATISTICAL TABLES.

The following statistical tables give in detail the data on which the statements of this report are based. They are:

I. Numerical view of the effects of disease and injury on United States troops performing insular and home service in 1902, compared with corresponding data for 1901 and for the decade 1891-1900.

II. Monthly mortality and prevalence of disease in the Army at home and on insular service.

III. Admissions to sick report, discharges, and deaths in the Army, with ratios per thousand of mean strength for the year 1902, the decade 1891-1900, and by races.

(*a*) Army, 1902.
Decade, 1891-1900.
(*b*) White troops.
Colored troops.
Philippine Scouts.

IV. Admissions to sick report, discharges, and deaths in the Army, with ratios per thousand of mean strength for the year 1902, at home and on insular service.

United States (continental).
Pacific islands.
Cuba and Porto Rico.

V. Admissions to sick report, discharges, and deaths in the Army, with ratios per thousand of mean strength for the year 1902, by arms of service.

(*a*) Infantry.
Cavalry.
Artillery.
(*b*) Engineers.
Ordnance.
Signal Corps.
(*c*) Medical Corps.
Philippine Scouts.
Others.

INTERNATIONAL TABLES.

I. Examination of recruits during the year 1902.

III. Movements of sick, by branches of military service and by months, 1902.

VI. Admissions of important diseases, by branches of military service, 1902.

VII. Admissions of important diseases, by months.

TABLE I.—*Numerical view of the effect of disease and injury on United States troops performing insular and home service in the year 1902, compared with corresponding data for the year 1901, and for the decade 1891–1900.*

	U. S. Army, year 1902 and comparisons with 1901.								U. S. Army, decade 1891–1900.
	Cuba and Porto Rico.	Pacific islands and China.	Total islands and China.	United States (continental).	Total U. S. Army.	White troops.	Colored troops.	Filipino troops.	
Mean strength	3,274	37,768	41,042	39,736	80,778	71,679	4,273	4,826	40,446
Total admissions to sick report	4,257	81,003	85,260	53,396	138,656	122,308	8,109	8,239	691,794
Per 1,000 of mean strength	1,300.24	2,144.75	2,077.38	1,343.77	1,716.51	1,706.33	1,897.74	1,707.21	1,710.43
Per 1,000 for previous year	1,523.57	1,928.14	1,888.59	1,550.25	1,791.59	1,787.06	1,845.95	....	....
Admissions for disease	3,416	75,228	78,644	43,677	122,321	107,174	7,279	7,868	602,417
Per 1,000 of mean strength	1,043.37	1,991.84	1,916.18	1,099.18	1,514.29	1,459.19	1,703.49	1,630.34	1,489.44
Per 1,000 for previous year	1,208.22	1,775.75	1,720.26	1,300.17	1,599.82	1,596.18	1,643.67	....	....
Admissions for injury	841	5,775	6,616	9,719	16,335	15,134	830	371	89,377
Per 1,000 of mean strength	256.87	152.91	161.20	244.60	202.22	211.14	194.25	76.87	220.98
Per 1,000 for previous year	315.35	152.39	168.33	250.08	191.77	190.88	202.27	....	....
Discharges for disability—all causes	66	541	607	1,277	1,884	1,757	114	13	7,133
Per 1,000 of mean strength	20.16	14.33	14.79	32.14	23.32	24.51	26.68	2.69	17.63
Per 1,000 for previous year	14.57	13.71	13.79	35.26	19.95	20.47	13.74	....	....
Discharges for disease	58	461	519	1,079	1,598	1,482	107	9	5,574
Per 1,000 of mean strength	17.72	12.21	12.65	27.15	19.78	20.68	25.04	1.86	13.78
Per 1,000 for previous year	12.09	9.64	9.88	29.64	15.55	15.98	10.37	....	....
Discharges for injury	8	80	88	198	286	275	7	4	1,559
Per 1,000 of mean strength	2.44	2.12	2.14	4.98	3.54	3.83	1.64	0.83	3.85
Per 1,000 for previous year	2.48	4.07	3.91	5.62	4.40	4.49	3.36	....	....
Deaths from all causes	22	918	940	311	1,251	1,032	103	116	5,960
Per 1,000 of mean strength	6.72	24.31	22.90	7.83	15.49	14.40	24.11	24.04	14.73
Per 1,000 for previous year	5.74	17.96	16.76	6.90	13.94	13.75	16.12	....	....
Deaths from disease	11	796	807	225	1,032	836	87	109	4,228
Per 1,000 of mean strength	3.36	21.08	19.66	5.66	12.78	11.66	20.36	22.59	10.45
Per 1,000 for previous year	3.72	12.40	11.55	4.68	9.58	9.28	13.18	....	....
Deaths from injury	11	122	133	86	219	196	16	7	1,732
Per 1,000 of mean strength	3.36	3.23	3.24	2.16	2.71	2.74	3.75	1.45	4.28
Per 1,000 for previous year	2.02	5.56	5.21	2.23	1.36	4.18	2.94	....	....

TABLE II.—*Monthly mortality and prevalence of disease in the Army at home and on insular service, for 1902.*

Months.	United States (continental).				Pacific islands.				Cuba and Porto Rico.				Army.			
	Mean strength.	Ratios per 1,000 of mean strength.			Mean strength.	Ratios per 1,000 of mean strength.			Mean strength.	Ratios per 1,000 of mean strength.			Mean strength.	Ratios per 1,000 of mean strength.		
		Admissions.	Deaths.	Constantly sick.		Admissions.	Deaths.	Constantly sick.		Admissions.	Deaths.	Constantly sick.		Admissions.	Deaths.	Constantly sick.
1902.																
January	33,608	121.82	0.48	60.02	48,898	160.27	1.35	59.85	6,070	105.27	0.33	47.44	88,576	141.90	0.95	59.06
February	33,752	115.67	.77	64.29	47,281	138.20	1.21	61.91	5,954	75.59	.50	37.78	86,987	125.17	.99	61.18
March	33,647	119.10	.89	60.92	45,622	149.80	1.49	58.80	5,417	92.67	.74	40.54	84,686	133.92	1.20	58.48
April	33,360	120.42	.42	57.84	44,771	169.43	[a]1.65	[a]61.11	4,663	102.30	....	35.67	82,794	145.89	1.06	58.36
May	35,924	119.22	.50	50.01	43,302	188.77	1.99	64.38	2,518	128.28	....	47.86	81,744	156.32	1.27	57.54
June	38,198	111.61	.79	47.94	40,327	205.65	2.95	70.49	2,055	132.36	....	55.82	80,580	159.17	1.85	59.40
July	40,402	114.66	.69	47.78	37,361	226.64	3.24	75.24	2,140	122.90	1.87	54.42	79,903	167.22	1.91	60.76
August	44,004	119.05	.66	50.66	33,616	207.73	3.12	79.43	2,144	116.14	1.40	50.05	79,764	156.32	1.72	62.72
September	45,764	107.50	.57	50.77	31,299	181.13	2.37	82.27	2,128	132.98	.94	54.04	79,191	137.44	1.24	63.26
October	47,236	102.34	.87	50.83	29,502	176.93	1.76	76.83	2,181	119.21	.92	52.91	78,919	130.69	1.20	60.57
November	45,762	102.58	.57	54.39	26,065	199.47	2.42	82.19	2,167	128.75	.46	51.07	73,994	137.47	1.22	64.05
December	45,176	99.85	.60	50.36	25,171	166.86	1.47	73.71	1,855	140.17	.54	64.31	72,202	124.25	.90	58.84
Total	39,736	1,343.77	7.83	53.34	37,768	2,144.75	24.31	68.82	3,274	1,300.24	6.72	46.18	80,778	1,716.51	15.49	60.27

[a] Cholera epidemic began March 20.

TABLE III (*a*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the decade 1891–1900, the year 1902, and by races.*

	U. S. Army, decade 1891-1900.						U. S. Army, year 1902.					
Mean strength	40,446						80,778					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Scarlet fever	58	0.14	...	...	4	0.01	18	0.22	...	...	1	0.01
Measles	4,411	10.91	3	0.01	47	.12	1,164	14.41	...	...	28	.35
Smallpox	429	1.06	...	...	148	.37	105	1.30	...	...	14	.17
Vaccinia	14,654	36.23	2	.004	...	...	2,003	24.80	...	...	...	...
Influenza	17,340	42.87	1	.002	43	.11	1,048	12.97	...	...	...	...
Dengue	5,364	13.26	...	...	...	...	6,492	80.39	...	...	...	...
Mumps	2,927	7.24	...	...	...	...	1,276	15.80	...	...	...	...
Diphtheria	223	.55	...	...	9	.02	21	.26	...	...	1	.01
Typhoid fever	7,574	18.72	36	.09	901	2.23	565	6.99	1	0.01	69	.85
Cholera, Asiatica	...	...	...	...	...	...	485	6.00	...	...	286	3.54
Yellow fever	1,012	2.50	...	...	158	.39	...	...	...	...	...	...
Beri-beri	...	...	...	...	...	...	626	7.75	4	.05	32	.40
Cerebro-spinal fever	106	.26	10	.02	62	.15	6	.07	1	.01	5	.06
Malarial fever, intermittent	117,690	290.98	2	.004	9	.02	18,410	227.91	2	.02	...	...
Malarial fever, remittent	32,220	79.66	5	.01	107	.26	3,098	38.35	...	...	7	.09
Malarial fever, pernicious	595	1.47	1	.002	203	.50	38	.47	...	...	21	.26
Malarial cachexia	7,059	17.45	154	.38	31	.08	450	5.57	4	.05	8	.10
Fever, undetermined	7,521	18.59	...	...	2	.004	1,107	13.70	...	...	...	...
Erysipelas	467	1.15	...	...	13	.03	60	.74	...	...	1	.01
Septicemia and tetanus	66	.16	2	.004	37	.09	13	.16	...	...	9	.11
Rheumatic fever	2,136	5.28	20	.05	5	.01	422	5.22	7	.09	1	.01
Consumption	1,407	3.48	611	1.51	243	.60	354	4.38	196	2.43	69	.85
Cancer	87	.22	15	.04	29	.07	15	.19	2	.02	2	.02
Syphilis and results	5,269	13.03	488	1.21	14	.03	1,807	22.37	221	2.74	1	.01
Gonorrhea and results	25,110	62.08	128	.32	1	.002	8,609	106.58	84	1.04	...	...
Chancroid and results	9,514	23.52	17	.04	1	.002	2,584	31.99	4	.05	...	...
Infectious, others	851	2.10	26	.06	26	.06	44	.54	10	.12	7	.09
Total infectious diseases	264,090	652.94	1,521	3.76	2,093	5.17	50,820	629.13	536	6.63	562	6.96
Anemia	1,116	2.76	23	.06	12	.03	180	2.23	6	.07	5	.06
Nutrition, others	400	.99	135	.33	11	.03	84	1.04	43	.53	2	.02
Total diseases of nutrition	1,516	3.75	158	.39	23	.06	264	3.27	49	.61	7	.09
Alcoholism	9,125	22.56	18	.04	91	.22	1,830	22.65	7	.09	24	.30
Brain and spinal cord	2,335	5.77	310	.77	84	.21	256	3.17	85	1.05	14	.17
Insanity	687	1.70	455	1.12	8	.02	138	1.71	151	1.87	3	.04

Meningitis	63	.16	4	.01	21	.05	8	.10	.....	.....	6	.07
Poisoning, narcotic	209	.52	13	.03	37	.09	63	.78	10	.12	11	.14
Nervous system, others	11,016	27.23	235	.58	18	.04	1,621	20.07	53	.66	1	.01
Total diseases of the nervous system	23,435	57.94	1,035	2.56	259	.64	3,916	48.48	306	3.79	59	.73
Poisoning, irritant	586	1.45	2	.004	48	.12	236	2.92	.....	.....	8	.10
Tonsillitis, pharyngitis, and sore throat	21,829	53.97	.....	.....	2	.004	4,503	55.73	.....	.....	1	.01
Peritonitis	101	.25	4	.01	38	.09	25	.31	2	.02	13	.16
Dyspepsia, colic, and constipation	27,927	69.04	36	.09	2	.004	5,958	73.76	3	.04	.....	.....
Gastritis	6,678	16.51	39	.10	19	.05	2,295	28.41	8	.10	5	.06
Dysentery, acute	6,339	15.67	7	.02	229	.57	3,146	38.95	7	.09	86	1.06
Dysentery, chronic	3,180	7.86	111	.27	336	.83	1,864	23.08	97	1.20	82	1.02
Diarrheal diseases, others	93,914	232.20	151	.37	343	.85	17,083	211.48	14	.17	13	.16
Enteritis	3,245	8.02	27	.07	67	.17	1,113	13.78	4	.05	14	.17
Perityphlitis and appendicitis	653	1.61	23	.06	53	.13	268	3.32	15	.19	10	.12
Digestive system, others	13,643	33.73	123	.30	104	.26	2,974	36.82	15	.19	25	.31
Total diseases of the digestive system	178,095	440.34	523	1.29	1,241	3.07	39,465	488.56	165	2.04	257	3.18
Heart, diseases of	1,928	4.77	434	1.07	154	.38	511	6.33	135	1.67	46	.57
Arteries and veins	638	1.58	106	.26	30	.07	130	1.61	11	.14	5	.06
Total diseases of the circulatory system	2,566	6.34	540	1.33	184	.45	641	7.93	146	1.81	51	.63
Bronchitis	25,956	64.17	41	.10	4	.01	4,816	59.62	9	.11	2	.02
Pneumonia	1,415	3.50	16	.04	228	.56	276	3.42	1	.01	47	.58
Pleurisy	1,189	2.94	41	.10	13	.03	323	4.00	12	.15	5	.06
Respiratory system, others	11,319	27.98	79	.20	27	.07	1,797	22.25	16	.20	3	.04
Total diseases of the respiratory system	39,879	98.59	177	.44	272	.67	7,212	89.28	38	.47	57	.71
Kidneys, diseases of	932	2.30	89	.22	121	.30	246	3.05	25	.31	36	.45
Varicocele	919	2.27	60	.15	.....	.....	302	3.74	8	.10	.....	.....
Genito urinary, others	3,449	8.53	80	.20	3	.01	1,065	13.18	17	.21	2	.02
Total diseases of the genito urinary system	5,300	13.10	229	.57	124	.31	1,613	19.97	50	.62	38	.47
Adenitis	1,933	4.78	13	.03	.....	.....	510	6.31	2	.02	.....	.....
Lymphatic system, others	309	.76	9	.02	3	.01	84	1.04	2	.02	.....	.....
Total diseases of the lymphatic system	2,242	5.54	22	.05	3	.01	594	7.35	4	.05	.....	.....
Rheumatism, muscular	18,976	46.91	147	.36	.....	.....	2,780	34.42	10	.12	.....	.....
Osteitis and periostitis	524	1.30	35	.09	.....	.....	117	1.45	9	.11	.....	.....
Arthritis and synovitis	2,488	6.15	132	.33	1	.002	883	10.93	39	.48	.....	.....
Rheumatism, chronic articular	3,579	8.85	268	.66	1	.002	456	5.64	28	.35	.....	.....
Muscles, bones, and joints, others	1,447	3.58	146	.36	1	.002	306	3.79	43	.53	.....	.....
Total diseases of the muscles, bones, and joints	27,014	66.79	728	1.80	3	.01	4,542	56.23	129	1.60	.....	.....

TABLE III (*a*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the decade 1891–1900, the year 1902, and by races*—Continued.

	U. S. Army, decade 1891-1900.						U. S. Army, year 1902.					
Mean strength	40,446.						80,778.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Total diseases of the integumentary system	44,927	111.08	52	0.13	5	0.01	10,696	132.41	7	0.09		
Total diseases of the eye	6,029	14.90	297	.73			1,349	16.70	77	.95	1	0.01
Total diseases of the ear	3,926	9.71	258	.64	6	.01	999	12.37	85	1.05		
Total diseases of the nose	544	1.34	30	.07	1	.002	106	1.31	5	.06		
Total unclassified and undiagnosed	2,854	7.05	4	.01	14	.03	104	1.29	1	.01		
Total for diseases	602,417	1,489.44	5,574	13.78	4,228	10.45	122,321	1,514.29	1,598	19.78	1,032	12.78
Drowning	7	.02			318	.79	1	.01			49	.61
Exhaustion from exposure and fatigue	2,109	5.21	3	.01	15	.04	112	1.39			1	.01
Heat stroke	924	2.28	16	.04	21	.05	85	1.05				
Lightning stroke	21	.05	1	.002	5	.01	2	.02				
Venomous bites, stings, and wounds	1,908	4.72	5	.01	1	.002	535	6.62	1	.01		
Abrasions, blisters, burns, and scalds	8,155	20.16	2	.004	1	.002	1,709	21.16			2	.02
Compression and concussion of brain	213	.53	8	.02	23	.06	50	.62			4	.05
Contusions and sprains	40,827	100.94	55	.14	4	.01	7,575	93.78	11	.14		
Dislocations	1,018	2.52	27	.07	1	.002	244	3.02	15	.19	3	.04
Fractures (not shot)	2,741	6.78	161	.40	56	.14	736	9.11	52	.64	25	.31
Herniae	1,773	4.38	101	.99	2	.004	361	4.47	59	.73		
Wounds, contused, lacerated, and punctured	11,168	27.61	41	.10	10	.02	2,191	27.11	5	.06	3	.04
Wounds, incised	5,637	13.94	28	.07	82	.20	1,197	14.82	15	.19	12	.15
Wounds, gunshot	4,137	10.23	607	1.50	1,063	2.63	329	4.07	74	.92	100	1.24
Secondary results of injury	1,151	2.85	135	.33	3	.01	376	4.65	40	.50		
Other injuries	7,588	18.76	69	.17	127	.31	832	10.30	14	.17	20	.25
Total for injuries	89,377	220.98	1,559	3.85	1,732	4.28	16,335	202.22	286	3.54	219	2.71
Total for diseases and injuries	691,794	1,710.43	7,133	17.63	5,960	14.73	138,656	1,716.51	1,884	23.32	1,251	15.49

TABLE III (*b*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902.*

	White troops.						Colored troops.						Philippine Scouts (native).					
Mean strength	71,679.						4,273.						4,826.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Scarlet fever	18	0.25			1	0.01												
Measles	1,123	15.67			28	.39	6	1.40					35	7.25				
Smallpox	73	1.02			12	.17	12	2.81			1	0.23	20	4.14			1	0.21
Vaccinia	1,973	27.53					18	4.21					12	2.49				
Influenza	991	13.83					42	9.83					15	3.11				
Dengue	5,291	73.82					491	114.91					710	147.12				
Mumps	1,055	14.72					30	7.02					191	39.58				
Diphtheria	20	.28			1	.01	1	.23										
Typhoid fever	552	7.70	1	0.01	68	.95	4	.94					9	1.86			1	.21
Cholera, Asiatica	338	4.72			203	2.83	67	15.68			34	7.96	80	16.58			49	10.15
Yellow fever																		
Beri beri	23	.32	2	.03	2	.03	5	1.17			1	.23	598	123.92	2	0.41	29	6.01
Cerebro spinal fever	6	.08	1	.01	5	.07												
Malarial fever, intermittent	14,435	201.38	2	.03			948	221.86					3,027	627.23				
Malarial fever, remittent	2,528	35.27			7	.10	212	49.61					358	74.19				
Malarial fever, pernicious	25	.35			13	.18							13	2.69			8	1.66
Malarial cachexia	417	5.82	4	.06	7	.10	15	3.51			1	.23	18	3.73				
Fever, undetermined	867	12.10					71	16.62					169	35.02				
Erysipelas	57	.80					2	.47					1	.21			1	.21
Septicemia and tetanus	12	.17			9	.13							1	.21				
Rheumatic fever	361	5.04	7	.10	1	.01	44	10.30					17	3.52				
Consumption	301	4.20	174	2.43	49	.68	31	7.25	19	4.45	14	3.28	22	4.56	3	.62	6	1.24
Cancer	15	.21	2	.03	2	.03												
Syphilis and results	1,676	23.36	202	2.82			111	25.98	19	4.45	1	.23	20	4.14				
Gonorrhea and results	7,730	107.84	76	1.06			698	163.35	8	1.87			181	37.51				
Chancroid and results	2,205	30.76	3	.04			346	80.97	1	.23			33	6.84				
Infections, others	40	.56	9	.13	6	.08	2	.47	1	.23	1	.23	2	.41				
Total infectious diseases	42,132	587.79	483	6.74	414	5.78	3,156	738.59	48	11.23	53	12.40	5,532	1,146.29	5	1.04	95	19.69
Anemia	163	2.27	6	.08	4	.06	10	2.34			1	.23	7	1.45				
Nutrition, others	82	1.14	43	.60	2	.03	2	.47										
Total diseases of nutrition	245	3.42	49	.68	6	.08	12	2.81			1	.23	7	1.45				

TABLE III (*b*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902*—Continued.

	White troops.						Colored troops.						Philippine Scouts (native).					
Mean strength	71,679.						4,273.						4,826.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Alcoholism	1,777	24.78	6	0.08	23	0.32	50	11.70	1	0.23	1	0.23	3	0.62	......	......	......	......
Brain and spinal cord	237	3.31	79	1.10	11	.15	17	3.98	5	1.17	2	.47	2	.41	1	0.21	1	0.21
Insanity	125	1.74	138	1.93	3	.04	9	2.11	11	2.57	......	......	4	.83	2	.41	......	......
Meningitis	6	.08	......	......	5	.07	......	......	......	......	......	......	2	.41	......	......	1	.21
Poisoning, narcotic	61	.85	10	.14	11	.15	1	.23	......	......	......	......	1	.21	......	......	......	......
Nervous system, others	1,457	20.33	52	.73	1	.01	104	24.34	1	.23	......	......	60	12.43	......	......	......	......
Total diseases of the nervous system	3,663	51.10	285	3.98	54	.75	181	42.36	18	4.21	3	.70	72	14.92	3	.62	2	.41
Poisoning, irritant	227	3.17	......	......	7	.10	8	1.87	......	......	1	.23	1	.21	......	......	......	......
Tonsillitis, pharyngitis, and sore throat	4,153	57.94	......	......	1	.01	326	76.30	......	......	......	......	24	4.97	......	......	......	......
Peritonitis	23	.32	2	.03	11	.15	1	.23	......	......	1	.23	1	.21	......	......	1	.21
Dyspepsia, cholic, and constipation	5,314	74.14	3	.04	......	......	429	100.40	......	......	......	......	215	44.55	......	......	......	......
Gastritis	2,070	28.88	8	.11	2	.03	148	34.64	......	......	3	.70	77	15.96	......	......	......	......
Dysentery, acute	2,877	40.14	7	.10	80	1.12	160	37.45	......	......	4	.91	109	22.59	......	......	2	.41
Dysentery, chronic	1,769	24.68	90	1.26	78	1.09	86	20.13	7	1.64	2	.47	9	1.86	......	......	2	.41
Diarrheal diseases, others	15,724	219.37	12	.17	13	.18	884	206.88	2	.47	......	......	475	98.43	......	......	......	......
Enteritis	1,046	14.59	4	.06	14	.20	40	9.36	......	......	......	......	27	5.59	......	......	......	......
Perityphlitis and appendicitis	259	3.61	15	.21	10	.14	6	1.40	......	......	......	......	3	.62	......	......	......	......
Digestive system, others	2,693	37.57	12	.17	23	.32	203	47.51	3	.70	1	.23	78	16.16	......	......	1	.21
Total diseases of the digestive system	36,155	501.40	153	2.13	239	3.33	2,291	536.16	12	2.81	12	2.81	1,019	211.15	......	......	6	1.24
Heart, diseases of	470	6.56	129	1.80	35	.49	31	7.25	6	1.40	8	1.87	10	2.07	......	......	3	.62
Arteries and veins	126	1.76	11	.15	4	.06	2	.47	......	......	1	.23	2	.41	......	......	......	......
Total diseases of the circulatory system	596	8.31	140	1.95	39	.54	33	7.72	6	1.40	9	2.11	12	2.49	......	......	3	.62
Bronchitis	4,353	60.73	9	.13	2	.03	264	61.79	......	......	......	......	199	41.24	......	......	......	......
Pneumonia	225	3.11	1	.01	37	.52	30	7.02	......	......	8	1.87	21	4.35	......	......	2	.41
Pleurisy	299	4.17	11	.15	5	.07	16	3.74	1	.23	......	......	8	1.66	......	......	......	......
Respiratory system, others	1,656	23.10	16	.22	3	.04	92	21.53	......	......	......	......	49	10.15	......	......	......	......
Total diseases of the respiratory system	6,533	91.14	37	.52	47	.66	402	94.08	1	.23	8	1.87	277	57.40	......	......	2	.41

Kidneys, diseases of	233	3.25	21	.29	34	.47	9	2.11	3	.70	1	.23	4	.83	1	.21	1	.21
Varicocele	297	4.14	8	.11	......	......	5	1.17	......	......	......	......	......	......	......	......	......	......
Genito-urinary, others	971	13.55	17	.24	2	.03	59	13.81	......	......	......	......	35	7.25	......	......	......	......
Total diseases of the genito-urinary system	1,501	20.94	46	.64	36	.50	73	17.08	3	.70	1	.23	39	8.08	1	.21	1	.21
Adenitis	427	5.96	......	......	......	......	71	16.62	2	.47	......	......	12	2.49	......	......	......	......
Lymphatic system, others	79	1.10	2	.03	......	......	4	.94	......	......	......	......	1	.21	......	......	......	......
Total diseases of the lymphatic system	506	7.06	2	.03	......	......	75	17.55	2	.47	......	......	13	2.69	......	......	......	......
Rheumatism, muscular	2,488	34.71	10	.14	......	......	198	46.34	......	......	......	......	94	19.48	......	......	......	......
Ostitis and periostitis	110	1.53	8	.11	......	......	6	1.40	1	.23	......	......	1	.21	......	......	......	......
Arthritis and synovitis	792	11.05	35	.49	......	......	60	14.04	4	.94	......	......	31	6.42	......	......	......	......
Rheumatism, chronic articular	387	5.40	26	.36	......	......	67	15.68	2	.47	......	......	2	.41	......	......	......	......
Muscles, bones, and joints, others	283	3.95	43	.60	......	......	21	4.91	......	......	......	......	2	.41	......	......	......	......
Total diseases of the muscles, bones, and joints	4,060	56.64	122	1.70	......	......	352	82.38	7	1.64	......	......	130	26.94	......	......	......	......
Total diseases of the integumentary system	9,444	131.75	7	.10	......	......	572	133.86	......	......	......	......	680	140.92	......	......	......	......
Total diseases of the eye	1,195	16.67	70	.98	1	.01	87	20.36	7	1.64	......	......	67	13.88	......	......	......	......
Total diseases of the ear	947	13.21	82	1.14	......	......	39	9.13	3	.70	......	......	13	2.69	......	......	......	......
Total diseases of the nose	100	1.40	5	.07	......	......	2	.47	......	......	......	......	4	.83	......	......	......	......
Total unclassified and undiagnosed	97	1.35	1	.01	......	......	4	.94	......	......	......	......	3	.62	......	......	......	......
Total for diseases	107,174	1,495.19	1,482	20.68	836	11.66	7,279	1,703.49	107	25.04	87	20.36	7,868	1,630.34	9	1.86	109	22.59
Drowning	1	.01	......	......	46	.64	......	......	......	......	3	.70	......	......	......	......	......	......
Exhaustion from exposure and fatigue	110	1.53	......	......	1	.01	1	.23	......	......	......	......	1	.21	......	......	......	......
Heat-stroke	76	1.06	......	......	......	......	2	.47	......	......	......	......	7	1.45	......	......	......	......
Lightning-stroke	2	.03	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Venomous bites, stings, and wounds	500	6.98	1	.01	......	......	18	4.21	......	......	......	......	17	3.52	......	......	......	......
Abrasions, blisters, burns, and scalds	1,569	21.89	......	......	2	.03	82	19.19	......	......	......	......	58	12.02	......	......	......	......
Compression and concussion of brain	47	.66	......	......	4	.06	2	.47	......	......	......	......	1	.21	......	......	......	......
Contusions and sprains	7,052	98.38	11	.15	......	......	414	96.89	......	......	......	......	109	22.59	......	......	......	......
Dislocations	230	3.21	15	.21	3	.04	12	2.81	......	......	......	......	2	.41	......	......	......	......
Fractures (not shot)	698	9.74	51	.71	22	.31	20	4.68	1	.23	3	.70	18	3.73	......	......	......	......
Hernia	332	4.63	57	.80	......	......	22	5.15	2	.47	......	......	7	1.45	......	......	......	......
Wounds, contused, lacerated, and punctured	2,024	28.24	5	.07	3	.04	109	25.51	......	......	......	......	58	12.02	......	......	......	......
Wounds, incised	1,067	14.89	14	.20	9	13	72	16.85	......	......	3	.70	58	12.02	1	.21	......	......
Wounds, gunshot	289	4.03	69	.96	86	1.20	21	4.91	2	.47	7	1.64	19	3.94	3	.62	7	1.45
Secondary results of injury	364	5.08	38	.53	......	......	11	2.57	2	.47	......	......	1	.21	......	......	......	......
Other injuries	773	10.78	14	.20	20	.28	44	10.30	......	......	......	......	15	3.11	......	......	......	......
Total for injuries	15,134	211.14	275	3.83	196	2.74	830	194.25	7	1.64	16	3.75	371	76.87	4	.83	7	1.45
Total for diseases and injuries	122,308	1,706.33	1,757	24.51	1,032	14.40	8,109	1,897.74	114	26.68	103	24.11	8,239	1,707.21	13	2.69	116	24.04

TABLE IV.—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902, at home and on insular service.*

	United States (continental).						Pacific islands.						Cuba and Porto Rico.					
Mean strength	39,736.						37,768.						3,274.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Scarlet fever	17	0.43	......	......	1	0.03	1	0.03	......	......	......	......	......	......	......	......	......	......
Measles	834	20.99	......	......	24	.60	328	8.68	......	......	4	0.11	2	0.61	......	......	......	......
Smallpox	39	.98	......	......	2	.05	63	1.67	......	......	12	.32	3	.92	......	......	......	......
Vaccinia	1,688	42.48	......	......	......	......	250	6.62	......	......	......	......	65	19.85	......	......	......	......
Influenza	863	21.72	......	......	......	......	108	2.86	......	......	......	......	77	23.52	......	......	......	......
Dengue	18	.45	......	......	......	......	6,473	171.39	......	......	......	......	1	.31	......	......	......	......
Mumps	686	17.26	......	......	......	......	574	15.20	......	......	......	......	16	4.89	......	......	......	......
Diphtheria	15	.38	......	......	......	......	4	.11	......	......	1	.03	2	.61	......	......	......	......
Typhoid fever	341	8.58	1	0.03	34	.86	210	5.56	......	......	33	.87	14	4.28	......	......	2	0.61
Cholera, Asiatica	......	......	......	......	......	......	485	12.84	......	......	286	7.57	......	......	......	......	......	......
Beri-beri	3	.08	......	......	......	......	623	16.50	4	0.11	32	.85	......	......	......	......	......	......
Cerebro-spinal fever	4	.10	1	.03	3	.08	2	.05	......	......	2	.05	......	......	......	......	......	......
Malarial fever, intermittent	3,194	80.38	......	......	......	......	14,930	395.31	2	.05	......	......	286	87.36	......	......	......	......
Malarial fever, remittent	501	12.61	......	......	1	.03	2,522	66.78	......	......	6	.16	75	22.91	......	......	......	......
Malarial fever, pernicious	4	.10	......	......	1	.03	32	.85	......	......	18	.48	2	.61	......	......	2	.61
Malarial cachexia	127	3.20	3	.08	2	.05	320	8.47	1	.03	6	.16	3	.92	......	......	......	......
Fever, undetermined	304	7.65	......	......	......	......	764	20.23	......	......	......	......	39	11.91	......	......	......	......
Erysipelas	47	1.18	......	......	......	......	13	.34	......	......	1	.03	......	......	......	......	......	......
Septicemia and tetanus	6	.15	......	......	1	.03	7	.19	......	......	7	.19	......	......	......	......	1	.31
Rheumatic fever	241	6.06	3	.08	......	......	172	4.55	4	.11	1	.03	9	2.75	......	......	......	......
Consumption	153	3.85	111	2.79	20	.50	192	5.08	78	2.07	48	1.27	9	2.75	7	2.14	1	.31
Cancer	11	.28	2	.05	......	......	4	.11	......	......	2	.05	......	......	......	......	......	......
Syphilis and results	915	23.03	174	4.38	......	......	769	20.36	30	.79	1	.03	123	37.57	17	5.19	......	......
Gonorrhea and results	4,313	108.54	73	1.84	......	......	3,871	102.50	9	.24	......	......	425	129.81	2	.61	......	......
Chancroid and results	1,175	29.57	4	.10	......	......	1,259	33.34	......	......	......	......	150	45.82	......	......	......	......
Infectious, others	29	.73	7	.18	3	.08	14	.37	3	.08	4	.11	1	.31	......	......	......	......
Total infectious diseases	15,528	390.78	379	9.54	92	2.32	33,990	899.97	131	3.47	464	12.29	1,302	397.68	26	7.94	6	1.83
Anemia	52	1.31	3	.08	......	......	122	3.23	3	.08	5	.13	6	1.83	......	......	......	......
Nutrition, others	31	.78	38	.96	1	.03	52	1.38	4	.11	1	.03	1	.31	1	.31	......	......
Total diseases of nutrition	83	2.09	41	1.03	1	.03	174	4.61	7	.19	6	.16	7	2.14	1	.31	......	......

Alcoholism	971	24.44	2	.05	11	.28	701	18.56	2	.05	13	.34	158	48.26	3	.92	......	......
Brain and spinal cord	143	3.60	57	1.43	6	.15	98	2.59	21	.56	7	.19	15	4.58	7	2.14	1	.31
Insanity	50	1.26	66	1.66	1	.03	85	2.25	81	2.14	2	.05	3	.92	4	1.22	......	......
Meningitis	4	.10	......	......	3	.08	4	.11	......	......	2	.05	......	......	......	......	1	.31
Poisoning, narcotic	35	.88	5	.13	9	.23	24	.64	5	.13	2	.05	4	1.22	......	......	......	......
Nervous system, others	770	19.38	36	.91	1	.03	781	20.68	14	.37	......	......	70	21.38	3	.92	......	......
Total diseases of the nervous system	1,973	49.65	166	4.18	31	.78	1,693	44.83	123	3.26	26	.69	250	76.36	17	5.19	2	.61
Poisoning, irritant	30	.76	......	......	6	.15	196	5.19	......	......	2	.05	10	3.05	......	......	......	......
Tonsillitis, pharyngitis, and sore throat	3,633	91.43	......	......	1	.03	781	20.68	......	......	......	......	89	27.19	......	......	......	......
Peritonitis	9	.23	2	.05	5	.13	14	.37	......	......	7	.19	2	.61	......	......	1	.31
Dyspepsia, colic, and constipation	2,564	64.53	3	.08	......	......	3,167	83.85	......	......	......	......	227	69.34	......	......	......	......
Gastritis	577	14.52	5	.13	2	.05	1,675	44.35	3	.08	3	.08	43	13.13	......	......	......	......
Dysentery, acute	202	5.08	1	.03	2	.05	2,928	77.53	6	.16	84	2.22	16	4.89	......	......	......	......
Dysentery, chronic	417	10.49	63	1.59	10	.25	1,442	38.18	33	.87	72	1.91	5	1.53	1	.31	......	......
Diarrheal diseases, others	3,590	90.34	9	.23	......	......	13,309	352.39	5	.13	13	.34	184	56.20	......	......	......	......
Enteritis	216	5.44	2	.05	2	.05	893	23.64	2	.05	12	.32	4	1.22	......	......	......	......
Perityphlitis and appendicitis	133	3.35	11	.28	5	.13	124	3.28	3	.08	5	.13	11	3.36	1	.31	......	......
Digestive system, others	1,370	34.48	11	.28	4	.10	1,481	39.22	4	.11	21	.56	123	37.57	......	......	......	......
Total diseases of the digestive system	12,741	320.64	107	2.69	37	.93	26,010	688.68	56	1.48	219	5.80	714	218.08	2	.61	1	.31
Heart, diseases of	260	6.54	104	2.62	15	.38	240	6.35	27	.71	31	.82	11	3.36	4	1.22	......	......
Arteries and veins	79	1.99	8	.20	3	.08	43	1.14	2	.05	2	.05	8	2.44	1	.31	......	......
Total diseases of the circulatory system	339	8.53	112	2.82	18	.45	283	7.49	29	.77	33	.87	19	5.80	5	1.53	......	......
Bronchitis	3,088	77.71	9	.23	1	.03	1,581	41.86	......	......	1	.03	147	44.90	......	......	......	......
Pneumonia	170	4.28	1	.03	23	.58	102	2.70	......	......	23	.61	4	1.22	......	......	1	.31
Pleurisy	190	4.78	9	.23	4	.10	126	3.34	3	.08	1	.03	7	2.14	......	......	......	......
Respiratory system, others	1,050	26.43	14	.35	2	.05	711	18.83	1	.03	......	......	36	11.00	1	.31	1	.31
Total diseases of the respiratory system	4,498	113.20	33	.83	30	.75	2,520	66.73	4	.11	25	.66	194	59.25	1	.31	2	.61
Kidneys, diseases of	108	2.72	19	.48	14	.35	136	3.60	5	.13	22	.58	2	.61	1	.31	......	......
Varicocele	188	4.73	6	.15	......	......	100	2.65	2	.05	......	......	14	4.28	......	......	......	......
Genito-urinary, others	515	12.96	12	.30	1	.03	478	12.66	5	.13	1	.03	72	21.99	......	......	......	......
Total diseases of the genito-urinary system	811	20.41	37	.93	15	.38	714	18.91	12	.32	23	.61	88	26.88	1	.31	......	......
Adenitis	216	5.44	2	.05	......	......	252	6.67	......	......	......	......	42	12.83	......	......	......	......
Lymphatic system, others	40	1.01	1	.03	......	......	43	1.14	1	.03	......	......	1	.31	......	......	......	......
Total diseases of the lymphatic system	256	6.44	3	.08	......	......	295	7.81	1	.03	......	......	43	13.13	......	......	......	......
Rheumatism, muscular	1,472	37.05	8	.20	......	......	1,206	31.93	2	.05	......	......	102	31.15	......	......	......	......
Osteitis and periostitis	60	1.51	7	.18	......	......	48	1.27	2	.05	......	......	9	2.75	......	......	......	......
Arthritis and synovitis	482	12.13	29	.73	......	......	379	10.03	8	.21	......	......	22	6.72	2	.61	......	......

TABLE IV.—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902, at home and on insular service*—Continued.

	United States (continental).						Pacific islands.						Cuba and Porto Rico.					
Mean strength	39,736.						37,768.						3,274.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Rheumatism, chronic articular	268	6.74	20	0.50	......	......	166	4.40	8	0.21	......	......	22	6.72	......	......	......	......
Muscles, bones, and joints, others	168	4.23	38	.96	......	......	121	3.20	5	.13	......	......	17	5.19	......	......	......	......
Total diseases of the muscles, bones, and joints	2,450	61.66	102	2.57	......	......	1,920	50.84	25	.66	......	......	172	52.54	2	0.61	......	......
Total diseases of the integumentary system	3,851	96.92	3	.08	......	......	6,304	166.92	2	.05	......	......	541	165.24	2	.61	......	......
Total diseases of the eye	621	15.63	45	1.13	1	0.03	687	18.19	32	.85	......	......	41	12.52	......	......	......	......
Total diseases of the ear	401	10.09	48	1.21	......	......	564	14.93	36	.95	......	......	34	10.38	1	.31	......	......
Total diseases of the nose	66	1.66	2	.05	......	......	39	1.03	3	.08	......	......	1	.31	......	......	......	......
Total unclassified and undiagnosed	59	1.48	1	.03	......	......	35	.93	......	......	......	......	10	3.05	......	......	......	......
Total for diseases	43,677	1,099.18	1,079	27.15	225	5.66	75,228	1,991.84	461	12.21	796	21.08	3,416	1,043.37	58	17.72	11	3.36
Drowning	......	......	......	......	16	.40	......	......	......	......	32	.85	1	.31	......	......	1	.31
Exhaustion from exposure and fatigue	43	1.08	......	......	......	......	61	1.62	......	......	1	.03	8	2.44	......	......	......	......
Heat stroke	13	.33	......	......	......	......	71	1.88	......	......	......	......	1	.31	......	......	......	......
Lightning stroke	1	.03	......	......	......	......	1	.03	......	......	......	......	......	......	......	......	......	......
Venomous bites, stings, and wounds	208	5.23	1	.03	......	......	274	7.25	......	......	......	......	53	16.19	......	......	......	......
Abrasions, blisters, burns, and scalds	712	17.92	......	......	1	.03	906	23.99	......	......	......	......	91	27.79	......	......	1	.31
Compression and concussion of brain	29	.73	......	......	3	.08	19	.50	......	......	1	.03	2	.61	......	......	......	......
Contusions and sprains	5,110	128.60	10	.25	......	......	2,102	55.66	1	.03	......	......	363	110.87	......	......	......	......
Dislocations	144	3.62	11	.28	2	.05	90	2.38	2	.05	1	.03	10	3.05	2	.61	......	......
Fractures (not shot)	469	11.80	43	1.08	17	.43	242	6.41	8	.21	6	.16	25	7.64	1	.31	2	.61
Hernia	217	5.46	46	1.16	......	......	133	3.52	13	.34	......	......	11	3.36	......	......	......	......
Wounds, contused, lacerated, and punctured	1,339	33.70	5	.13	1	.03	711	18.83	......	......	2	.05	141	43.07	......	......	......	......
Wounds, incised	571	14.37	6	.15	2	.05	551	14.59	8	.21	9	.24	75	22.91	1	.31	1	.31
Wounds, gunshot	124	3.12	34	.86	31	.78	192	5.08	38	1.01	63	1.67	13	3.97	2	.61	6	1.83
Secondary results of injury	217	5.46	29	.73	......	......	143	3.79	9	.24	......	......	16	4.89	2	.61	......	......
Other injuries	522	13.14	13	.33	13	.33	279	7.39	1	.03	7	.19	31	9.47	......	......	......	......
Total for injuries	9,719	244.60	198	4.98	86	2.16	5,775	152.91	80	2.12	122	3.23	841	256.87	8	2.41	11	3.36
Total for diseases and injuries	53,396	1,343.77	1,277	32.14	311	7.83	81,003	2,144.75	541	14.33	918	24.31	4,257	1,300.24	66	20.16	22	6.72

TABLE V (*a*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902, by arms of service.*

	Infantry.						Cavalry.						Artillery.					
Mean strength	33,337.						14,676.						17,058.					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Scarlet fever	4	0.12	......	......	......	......	1	0.07	......	......	......	......	5	0.29	......	......	......	......
Measles	309	9.27	......	......	2	0.06	78	5.31	......	......	......	......	310	18.17	......	......	5	0.29
Smallpox	40	1.20	......	......	7	.21	9	.61	......	......	2	0.14	10	.59	......	......	......	......
Vaccinia	387	11.61	......	......	......	......	223	15.20	......	......	......	......	854	50.06	......	......	......	......
Influenza	299	8.97	......	......	......	......	186	12.67	......	......	......	......	361	21.16	......	......	......	......
Dengue	3,374	101.21	......	......	......	......	1,634	111.34	......	......	......	......	212	12.43	......	......	......	......
Mumps	452	13.56	......	......	......	......	115	7.84	......	......	......	......	294	17.23	......	......	......	......
Diphtheria	7	.21	......	......	1	.03	3	.20	......	......	......	......	4	.23	......	......	......	......
Typhoid fever	198	5.94	1	0.03	26	.78	118	8.04	......	......	13	.89	160	9.38	......	......	15	.88
Cholera, Asiatica	231	6.93	......	......	136	4.08	122	8.31	......	......	72	4.91	5	.29	......	......	4	.23
Beri-beri	23	.69	2	.06	1	.03	4	.27	......	......	1	.07	......	......	......	......	......	......
Cerebro-spinal fever	2	.06	......	......	2	.06	2	.14	1	0.07	1	.07	1	.06	......	......	1	.06
Malarial fever, intermittent	9,912	297.33	2	.06	......	......	3,154	214.91	......	......	......	......	1,303	76.39	......	......	......	......
Malarial fever, remittent	1,564	46.92	......	......	5	.15	733	49.94	......	......	1	.07	209	12.25	......	......	......	......
Malarial fever, pernicious	18	.54	......	......	6	.18	2	.14	......	......	2	.14	3	.18	......	......	3	.18
Malarial cachexia	250	7.50	3	.09	6	.18	73	4.97	......	......	......	......	61	3.58	1	0.06	1	.06
Fever, undetermined	514	15.42	......	......	......	......	188	12.81	......	......	......	......	163	9.56	......	......	......	......
Erysipelas	22	.66	......	......	......	......	9	.61	......	......	......	......	22	1.29	......	......	......	......
Septicemia and tetanus	5	.15	......	......	3	.09	4	.27	......	......	3	.20	1	.06	......	......	1	.06
Rheumatic fever	191	5.73	4	.12	......	......	82	5.59	1	.07	1	.07	83	4.87	......	......	......	......
Consumption	169	5.07	92	2.76	41	1.23	49	3.34	31	2.11	7	.48	56	3.28	34	1.99	11	.64
Cancer	6	.18	......	......	2	.06	1	.07	1	.07	......	......	5	.29	1	.06	......	......
Syphilis and results	970	29.10	86	2.58	1	.03	341	23.23	49	3.34	......	......	337	19.76	68	3.99	......	......
Gonorrhea and results	4,000	119.99	26	.78	......	......	1,959	133.48	17	1.16	......	......	1,792	105.05	29	1.70	......	......
Chancroid and results	1,325	39.75	2	.06	......	......	643	43.81	1	.07	......	......	418	24.50	1	.06	......	......
Infectious, others	10	.30	2	.06	4	.12	9	.61	3	.20	......	......	9	.53	2	.12	1	.06
Total infectious diseases	24,282	728.38	220	6.60	243	7.29	9,742	663.80	104	7.09	103	7.02	6,678	391.49	136	7.97	42	2.46
Anemia	84	2.52	2	.06	4	.12	45	3.07	3	.20	......	......	27	1.58	......	......	......	......
Nutrition, others	49	1.47	10	.30	1	.03	16	1.09	1	.07	......	......	13	.76	7	.41	1	.06
Total diseases of nutrition	133	3.99	12	.36	5	.15	61	4.16	4	.27	......	......	40	2.34	7	.41	1	.06

TABLE V (*a*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902, by arms of service*—Continued.

	Infantry.						Cavalry.						Artillery.					
Mean strength	33,337.						14,676.						17,058.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Alcoholism	865	25.95	2	0.06	14	0.42	216	14.72	1	0.07	3	0.20	571	33.47	3	0.18	6	0.35
Brain and spinal cord	106	3.18	27	.81	6	.18	49	3.34	20	1.36	1	.07	57	3.34	28	1.64	2	.12
Insanity	79	2.37	89	2.67	1	.03	21	1.43	22	1.50	2	.14	17	1.00	21	1.23	......	......
Meningitis	5	.15	......	......	3	.09	......	......	......	......	......	......	1	.06	......	......	2	.12
Poisoning, narcotic	22	.66	3	.09	7	.21	11	.75	2	.14	1	.07	14	.82	2	.12	......	......
Nervous system, others	639	19.17	16	.48	1	.03	303	20.64	15	1.02	......	......	380	22.28	19	1.11	......	......
Total diseases of the nervous system	1,716	51.48	137	4.11	32	.96	600	40.88	60	4.09	7	.48	1,040	60.97	73	4.28	10	.59
Poisoning, irritant	191	5.73	......	......	4	.12	12	.82	......	......	......	......	19	1.11	......	......	3	.18
Tonsillitis, pharyngitis, and sore throat	1,475	44.25	......	......	......	......	1,033	70.38	......	......	1	.07	1,418	83.12	......	......	......	......
Peritonitis	15	.45	1	.03	7	.21	......	......	......	......	1	.07	3	.18	1	.06	1	.06
Dyspepsia, colic, and constipation	2,711	81.33	1	.03	......	......	1,162	79.17	......	......	......	......	1,338	78.43	2	.12	......	......
Gastritis	1,310	39.30	2	.06	5	.15	424	28.89	2	.14	......	......	258	15.12	2	.12	......	......
Dysentery, acute	2,015	60.45	4	.12	54	1.62	583	39.72	2	.14	17	1.16	104	6.10	......	......	4	.23
Dysentery, chronic	1,175	35.25	38	1.14	57	1.71	298	20.31	39	2.66	14	.95	113	6.62	9	.53	3	.18
Diarrheal diseases, others	10,317	309.48	10	.30	10	.30	3,376	230.04	3	.20	3	.20	2,037	119.41	1	.06	......	......
Enteritis	507	15.21	1	.03	9	.27	337	22.96	1	.07	3	.20	108	6.33	2	.12	......	......
Perityphlitis and appendicitis	103	3.09	2	.06	3	.09	44	3.00	6	.41	2	.14	70	4.10	6	.35	3	.18
Digestive system, others	1,394	41.82	6	.18	20	.60	647	44.08	4	.27	3	.20	590	34.59	3	.18	1	.06
Total diseases of the digestive system	21,213	636.32	65	1.95	169	5.07	7,916	539.38	57	3.88	44	3.00	6,058	355.14	26	1.52	15	.88
Heart, diseases of	221	6.63	41	1.23	21	.63	111	7.56	25	1.70	10	.68	91	5.33	35	2.05	5	.29
Arteries and veins	49	1.47	2	.06	3	.09	23	1.57	4	.27	......	......	36	2.11	3	.18	1	.06
Total diseases of the circulatory system	270	8.10	43	1.29	24	.72	134	9.13	29	1.98	10	.68	127	7.44	38	2.23	6	.35
Bronchitis	1,714	51.42	1	.03	1	.03	817	55.67	2	.14	......	......	1,650	96.73	6	.35	1	.06
Pneumonia	121	3.63	......	......	18	.54	40	2.73	1	.07	9	.61	60	3.52	......	......	9	.53
Pleurisy	135	4.05	6	.18	......	......	57	3.88	3	.20	3	.20	71	4.16	2	.12	1	.06
Respiratory system, others	674	20.22	4	.12	2	.06	337	22.96	2	.14	......	......	568	33.31	9	.53	......	......
Total diseases of the respiratory system	2,644	79.31	11	.33	21	.63	1,251	85.24	8	.55	12	.82	2,349	137.71	17	1.00	11	.64

Kidneys, diseases of	110	3.30	4	.12	22	.66	42	2.86	9	.61	4	.27	54	3.17	10	.59	2	.21
Varicocele	102	3.06	2	.06	......	......	69	4.70	2	.14	......	......	83	4.87	4	.23	......	......
Genito-urinary, others	490	14.70	3	.09	1	.03	200	13.63	2	.14	......	......	225	13.19	6	.35	1	.06
Total diseases of the genito-urinary system	702	21.06	9	.27	23	.69	311	21.19	13	.89	4	.27	362	21.22	20	1.17	3	.18
Adenitis	224	6.72	......	......	......	......	114	7.77	2	.14	......	......	123	7.21	......	......	......	......
Lymphatic system, others	31	.93	1	.03	......	......	25	1.70	......	......	......	......	19	1.11	1	.06	......	......
Total diseases of the lymphatic system	255	7.65	1	.03	......	......	139	9.47	2	.14	......	......	142	8.32	1	.06	......	......
Rheumatism, muscular	1,256	37.68	3	.09	......	......	502	34.20	2	.14	......	......	645	37.81	4	.23	......	......
Osteitis and periostitis	55	1.65	3	.09	......	......	18	1.23	1	.07	......	......	28	1.64	4	.23	......	......
Arthritis and synovitis	414	12.42	14	.42	......	......	153	10.42	12	.82	......	......	206	12.08	11	.64	......	......
Rheumatism, chronic articular	212	6.36	13	.39	......	......	95	6.47	4	.27	......	......	92	5.39	7	.41	......	......
Muscles, bones, and joints, others	128	3.84	13	.39	......	......	81	5.52	7	.48	......	......	70	4.10	17	1.00	......	......
Total diseases of the muscles, bones, and joints	2,065	61.94	46	1.38	......	......	849	57.85	26	1.77	......	......	1,041	61.03	43	2.52	......	......
Total diseases of the integumentary system	5,298	158.93	3	.09	......	......	2,359	160.71	1	.07	......	......	1,824	106.93	3	.18	......	......
Total diseases of the eye	589	17.67	33	.99	......	......	253	17.24	14	.95	......	......	288	16.88	11	.64	1	.06
Total diseases of the ear	479	14.37	40	1.20	......	......	186	12.67	16	1.09	......	......	210	12.31	17	1.00	......	......
Total diseases of the nose	38	1.14	4	.12	......	......	19	1.29	1	.07	......	......	26	1.52	......	......	......	......
Total unclassified and undiagnosed	49	1.47	......	......	......	......	16	1.09	......	......	......	......	25	1.47	1	.06	......	......
Total for diseases	59,733	1,791.79	624	18.72	517	15.51	23,836	1,624.15	335	22.83	180	12.26	20,210	1,184.78	393	23.04	89	5.22
Drowning	......	......	......	......	22	.66	1	.07	......	......	15	1.02	......	......	......	......	6	.35
Exhaustion from exposure and fatigue	50	1.50	......	......	......	......	24	1.64	......	......	......	......	22	1.29	......	......	......	......
Heat stroke	55	1.65	......	......	......	......	9	.61	......	......	......	......	11	.64	......	......	......	......
Lightning stroke	1	.03	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Venomous bites, stings, and wounds	243	7.29	......	......	......	......	129	8.79	......	......	......	......	113	6.62	......	......	......	......
Abrasions, blisters, burns, and scalds	884	26.52	......	......	......	......	327	22.28	......	......	......	......	355	20.81	......	......	2	.12
Compression and concussion of brain	14	.42	......	......	1	.03	22	1.50	......	......	2	.14	10	.59	......	......	1	.06
Contusions and sprains	2,264	67.91	3	.09	......	......	2,430	165.58	8	.55	......	......	2,312	135.55	......	......	......	......
Dislocations	96	2.88	3	.09	......	......	65	4.43	6	.41	......	......	66	3.87	4	.23	1	.06
Fractures (not shot)	259	7.77	14	.42	12	.36	187	12.74	17	1.16	4	.27	203	11.90	15	.88	8	.47
Herniæ	146	4.38	23	.69	......	......	71	4.84	8	.55	......	......	84	4.92	12	.70	......	......
Wounds, contused, lacerated, and punctured	814	24.42	2	.06	2	.06	548	37.34	1	.07	......	......	654	38.34	2	.12	1	.06
Wounds, incised	536	16.08	10	.30	3	.09	244	16.63	......	......	8	.55	295	17.29	3	.18	1	.06
Wounds, gunshot	155	4.65	45	1.35	61	1.83	88	6.00	13	.89	14	.95	48	2.81	10	.59	11	.64
Secondary results of injury	151	4.53	11	.33	......	......	116	7.90	8	.55	......	......	76	4.45	12	.70	......	......
Other injuries	291	8.73	5	.15	11	.33	222	15.13	2	.14	1	.07	236	13.83	5	.29	3	.18
Total for injuries	5,959	178.75	116	3.48	112	3.36	4,483	305.46	63	4.29	44	3.00	4,485	262.92	63	3.69	34	1.99
Total for diseases and injuries	65,692	1,970.54	740	22.20	629	18.87	28,319	1,929.61	398	27.12	224	15.27	24,695	1,447.71	456	26.73	123	7.21

TABLE V (*b*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902, by arms of service*—Continued.

	Engineers.						Ordnance.						Signal Corps.					
Mean strength	1,175.						719.						761.					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Cause of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Measles	14	11.91											8	10.51				
Smallpox	1	.85											1	1.31			1	1.31
Vaccinia	8	6.81					10	13.91					13	17.08				
Influenza	14	11.91					18	25.04					9	11.83				
Dengue	48	40.85					10	13.91					51	67.02				
Mumps	6	5.11					1	1.39					1	1.31				
Diphtheria	1	.85					1	1.39										
Typhoid fever	30	25.53			6	5.11							3	3.94			2	2.63
Cholera Asiatica	6	5.11			2	1.70							5	6.57			3	3.94
Malarial fever, intermittent	290	246.81					26	36.16					87	114.32				
Malarial fever, remittent	56	47.66			1	.85							24	31.54				
Malarial cachexia	5	4.26			1	.85							5	6.57				
Fever, undetermined	20	17.02											5	6.57				
Erysipelas	2	1.70					1	1.39										
Rheumatic fever	10	8.51	1	0.85			3	4.17					8	10.51				
Consumption	9	7.66	7	5.96	1	.85	1	1.39	1	1.39			4	5.26	3	3.94		
Syphilis and results	30	25.53	4	3.40			3	4.17					11	14.46				
Gonorrhea and results	152	129.36	1	.85			3	4.17					51	67.02	2	2.63		
Chancroid and results	44	37.45					1	1.39					18	23.65				
Total infectious diseases	746	634.90	13	11.06	11	9.36	78	108.48	1	1.39			304	399.47	5	6.57	6	7.88
Anemia	2	1.70											3	3.94				
Total diseases of nutrition	2	1.70											3	3.94				
Alcoholism	22	18.72					22	30.60					15	19.71				
Brain and spinal cord	1	.85					3	4.17					2	2.63	1	1.31		
Insanity	2	1.70	5	4.26			1	1.39	1	1.39					1	1.31		
Poisoning, narcotic	1	.85			1	.85												
Nervous system, others	33	28.08					19	26.43					10	13.14				
Total diseases of the nervous system	59	50.21	5	4.26	1	.85	45	62.59	1	1.39			27	35.48	2	2.63		

Poisoning, irritant	1	.85					2	2.78					1	1.31				
Tonsillitis, pharyngitis, and sore throat	75	63.82					30	41.73					25	32.85				
Peritonitis													1	1.31				
Dyspepsia, colic, and constipation	158	134.47					36	50.07					25	32.85				
Gastritis	26	22.13	1	.85			14	19.47					16	21.03				
Dysentery, acute	87	74.04			2	1.70	3	4.17					34	44.68				
Dysentery, chronic	57	48.51	1	.85			4	5.56					36	47.31	1	1.31		
Diarrheal diseases, others	315	268.10					45	62.59					88	115.61				
Enteritis	14	11.91			1	.85	3	4.17					19	24.97				
Perityphlitis and appendicitis	6	5.11	1	.85	1	.85	1	1.39					2	2.63				
Digestive system, others	54	45.96					21	29.21					16	21.03				
Total diseases of the digestive system	793	674.89	3	2.55	4	3.40	159	221.14					263	345.60	1	1.31		
Heart, diseases of	10	8.51	3	2.55	1	.85	3	4.17			3	4.17	1	1.31				
Arteries and veins	6	5.11	1	.85			1	1.39	1	1.39			1	1.31				
Total diseases of the circulatory system	16	13.62	4	3.40	1	.85	4	5.56	1	1.39	3	4.17	2	2.63				
Bronchitis	74	62.98					51	70.92					12	15.77				
Pneumonia	9	7.66			1	.85	1	1.39			2	2.78	1	1.31				
Pleurisy	3	2.55																
Respiratory system, others	25	21.28					30	41.73					5	6.57				
Total diseases of the respiratory system	111	94.47			1	.85	82	114.05			2	2.78	18	23.65				
Kidneys, diseases of	7	5.96	1	.85	1	.85	1	1.39					1	1.31				
Varicocele	12	10.21											1	1.31				
Genito urinary, others	12	10.21					6	8.34	1	1.39			9	11.83				
Total diseases of the genito urinary system	31	26.38	1	.85	1	.85	7	9.74	1	1.39			11	14.46				
Adenitis	8	6.81					1	1.39					1	1.31				
Lymphatic system, others	4	3.40																
Total diseases of the lymphatic system	12	10.21					1	1.39					1	1.31				
Rheumatism, muscular	80	68.09					57	79.28	1	1.39			5	6.57				
Osteitis and periostitis													2	2.63				
Arthritis and synovitis	12	10.21	1	.85			3	4.17					1	1.31				
Rheumatism, chronic articular	22	18.72					3	4.17					1	1.31				
Muscles, bones, and joints, others	7	5.96	1	.85			1	1.39					1	1.31				
Total diseases of the muscles, bones, and joints	121	102.98	2	1.70			61	89.02	1	1.39			10	13.14				
Total diseases of the integumentary system	114	97.02					28	38.94					40	52.57				
Total diseases of the eye	29	24.68	2	1.70			4	5.56					11	14.46	1	1.31		
Total diseases of the ear	16	13.62	2	1.70			5	6.95					3	3.94				

TABLE V (*b*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength. for the year 1902 by arms of service*—Continued.

	Engineers.						Ordnance.						Signal Corps.					
Mean strength	1,175.						719.						761.					
Cause of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Total diseases of the nose	3	2.55					1	1.39					1	1.31				
Total unclassified and undiagnosed	1	.85											2	2.63				
Total for diseases	2,054	1,748.09	32	27.24	19	16.17	478	664.81	5	6.95	5	6.95	696	914.59	9	11.83	6	7.88
Drowning					1	.85												
Exhaustion from exposure and fatigue	2	1.70											1	1.31				
Heat stroke	2	1.70																
Venomous bites, stings, and wounds	2	1.70					2	2.78					3	3.91				
Abrasions, blisters, burns, and scalds	36	30.64											5	6.57				
Contusions and sprains	145	123.41					43	59.80					18	23.65				
Dislocations	6	5.11					2	2.78					1	1.31			1	1.31
Fractures (not shot)	8	6.81	2	1.70			5	6.95					1	1.31				
Herniæ	4	3.40					3	4.17					2	2.63				
Wounds, contused, lacerated, and punctured	44	37.45					12	16.69					6	7.88				
Wounds, incised	31	26.38					6	8.34					3	3.94				
Wounds, gunshot	5	4.26	2	1.70	1	.85					1	1.39					1	1.31
Secondary results of injury	3	2.55											1	1.31				
Other injuries	13	11.06					13	18.08					8	10.51				
Total for injuries	301	256.17	4	3.40	2	1.70	86	119.61			1	1.39	49	64.39			2	2.63
Total for diseases and injuries	2,355	2,004.26	36	30.64	21	17.87	564	784.42	5	6.95	6	8.34	745	978.98	9	11.83	8	10.51

TABLE V (c).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902, by arms of service*—Continued.

	Medical Corps.[a]						Philippine Scouts.[b]						Others.					
Mean strength	4,293.						4,925.						3,834.					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Scarlet fever													8	2.09			1	0.26
Measles	23	5.36					35	7.11					387	100.94			21	5.48
Smallpox	6	1.40			1	0.23	20	4.06			1	0.20	18	4.70			2	.52
Vaccinia	32	7.45					12	2.44					464	121.02				
Influenza	48	11.18					15	3.05					98	25.56				
Dengue	420	97.84					722	146.60					21	5.48				
Mumps	21	4.89					191	38.78					195	50.86				
Diphtheria													5	1.30				
Typhoid fever	25	5.82			2	.47	9	1.83			1	.20	22	5.74			4	1.04
Cholera Asiatica	32	7.45			17	3.96	83	16.85			51	10.36	1	.26			1	.26
Beri-beri	1	.23			1	.23	598	121.42	2	0.41	29	5.89						
Cerebro-spinal fever													1	.26			1	.26
Malarial fever, intermittent	353	82.23					3,032	615.63					253	65.99				
Malarial fever, remittent	120	27.95					363	73.71					29	7.56				
Malarial fever, pernicious	2	.47			2	.47	13	2.64			8	1.62						
Malarial cachexia	24	5.59					18	3.65					14	3.65				
Fever, undetermined	39	9.08					170	34.52					8	2.09				
Erysipelas	3	.70					1	.20			1	.20						
Septicemia and tetanus	1	.23			1	.23	1	.20					1	.26			1	.26
Rheumatic fever	16	3.73					17	3.45					12	3.13	1	0.26		
Consumption	21	4.89	11	2.56	2	.47	24	4.87	3	.61	6	1.22	21	5.48	14	3.65	1	.26
Cancer	1	.23											2	.52				
Syphilis and results	44	10.25	7	1.63			20	4.06					51	13.30	7	1.83		
Gonorrhea and results	220	51.25	2	.47			182	36.96					250	65.21	7	1.83		
Chancroid and results	38	8.85					34	6.90					63	16.43				
Infectious, others	4	.93	1	.23			2	.41					10	2.61	2	.52	2	.52
Total infectious diseases	1,494	348.03	21	4.89	26	6.06	5,562	1,129.34	5	1.02	97	19.69	1,934	504.43	31	8.09	34	8.87
Anemia	4	.93			1	.23	7	1.42					8	2.09	1	.26		
Nutrition, others	2	.47	2	.47									4	1.04	23	6.00		
Total diseases of nutrition	6	1.40	2	.47	1	.23	7	1.42					12	3.13	24	6.26		

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[a] Includes 177 volunteer medical officers.

[b] Including white officers.

TABLE V (*c*).—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, for the year 1902, by arms of service*—Continued.

	Medical Corps.						Philippine Scouts.						Others.					
Mean strength	4,293.						4,925.						3,834.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Alcoholism	72	16.77	1	0.23	1	0.23	6	1.22					41	10.69				
Brain and spinal cord	17	3.96	2	.47	2	.47	2	.41	1	0.20	1	0.20	19	4.96	6	1.56	2	0.52
Insanity	9	2.10	6	1.40			4	.81	2	.41			5	1.30	4	1.04		
Meningitis							2	.41			1	.20						
Poisoning, narcotic	12	2.80	1	.23	2	.47	1	.20					2	.52	2	.52		
Nervous system, others	87	20.27	1	.23			61	12.39					89	23.21	2	.52		
Total diseases of the nervous system	197	45.89	11	2.56	5	1.16	76	15.43	3	.61	2	.41	156	40.69	14	3.65	2	.52
Poisoning, irritant	7	1.63			1	.23	1	.20					2	.52				
Tonsillitis, pharyngitis, and sore throat	172	40.07					25	5.08					250	65.20				
Peritonitis	4	.93			2	.47	1	.20			1	.20	1	.26			1	.26
Dyspepsia, colic, and constipation	168	39.14					215	43.66					145	37.82				
Gastritis	127	29.58					80	16.24					40	10.43				
Dysentery, acute	182	42.39	1	.23	7	1.63	113	22.95			2	.41	25	6.52	1	.26		
Dysentery, chronic	138	32.15	4	.93	2	.47	10	2.03			2	.41	33	8.61				
Diarrheal diseases, others	303	70.58					478	97.06					124	32.34	5	1.30	4	1.04
Enteritis	70	16.31			1	.23	29	5.89					26	6.78				
Perityphlitis and appendicitis	34	7.92			1	.23	3	.61					5	1.30				
Digestive system, others	89	20.73	1	.23			83	16.85			1	.20	80	20.87	1	.26		
Total diseases of the digestive system	1,294	301.42	6	1.40	14	3.26	1,038	210.76			6	1.22	731	190.66	7	1.83	5	1.30
Heart, diseases of	25	5.82	3	.70	2	.47	10	2.03			3	.61	39	10.17	28	7.30	1	.26
Arteries and veins	5	1.16					2	.41					7	1.83			1	.26
Total diseases of the circulatory system	30	6.99	3	.70	2	.47	12	2.44			3	.61	46	12.00	28	7.30	2	.52
Bronchitis	128	29.82					201	40.82					169	44.08				
Pneumonia	6	1.40			2	.47	21	4.26			2	.41	17	4.43			4	1.04
Pleurisy	25	5.82	1	.23	1	.23	8	1.62					24	6.26				
Respiratory system, others	32	7.45					51	10.36					75	19.56	1	.26	1	.26
Total diseases of the respiratory system	191	44.49	1	.23	3	.70	281	57.06			2	.41	285	74.34	1	.26	5	1.30

Kidneys, diseases of	18	4.19	......	......	5	1.16	4	.81	1	.20	1	.20	9	2.35	......	......	1	.26
Varicocele	9	2.10	......	......	......	......	......	......	......	......	......	......	26	6.78	......	......	......	......
Genito-urinary, others	46	10.72	1	.23	......	......	35	7.11	......	......	......	......	42	10.95	4	1.04	......	......
Total diseases of the genito-urinary system	73	17.00	1	.23	5	1.16	39	7.92	1	.20	1	.20	77	20.08	4	1.04	1	.26
Adenitis	13	3.03	......	......	......	......	12	2.44	......	......	......	......	14	3.65	......	......	......	......
Lymphatic system, others	2	.47	......	......	......	......	1	.20	......	......	......	......	2	.52	......	......	......	......
Total diseases of the lymphatic system	15	3.49	......	......	......	......	13	2.64	......	......	......	......	16	4.17	......	......	......	......
Rheumatism, muscular	76	17.70	......	......	......	......	94	19.09	......	......	......	......	65	16.95	......	......	......	......
Osteitis and periostitis	7	1.63	......	......	......	......	1	.20	......	......	......	......	6	1.56	1	.26	......	......
Arthritis and synovitis	22	5.12	......	......	......	......	31	6.29	......	......	......	......	41	10.69	1	.26	......	......
Rheumatism, chronic articular	19	4.43	3	.70	......	......	3	.61	......	......	......	......	9	2.35	1	.26	......	......
Muscles, bones, and joints, others	6	1.40	1	.23	......	......	2	.41	......	......	......	......	10	2.61	4	1.04	......	......
Total diseases of the muscles, bones, and joints	130	30.28	4	.93	......	......	131	26.59	......	......	......	......	131	34.17	7	1.83	......	......
Total diseases of the integumentary system	169	39.37	......	......	......	......	683	138.68	......	......	......	......	181	47.21	......	......	......	......
Total diseases of the eye	58	13.51	5	1.16	......	......	69	14.01	......	......	......	......	48	12.52	11	2.87	......	......
Total diseases of the ear	36	8.39	1	.23	......	......	14	2.84	......	......	......	......	50	13.04	9	2.35	......	......
Total diseases of the nose	5	1.16	......	......	......	......	4	.81	......	......	......	......	9	2.35	......	......	......	......
Total unclassified and undiagnosed	4	.93	......	......	......	......	3	.61	......	......	......	......	4	1.04	......	......	......	......
Total for diseases	3,702	862.33	55	12.81	56	13.04	7,932	1,610.56	9	1.83	111	22.54	3,680	959.83	136	35.47	49	12.78
Drowning	......	......	......	......	5	1.16	......	......	......	......	......	......	......	......	......	......	......	......
Exhaustion from exposure and fatigue	5	1.16	......	......	1	.23	1	.20	......	......	......	......	7	1.83	......	......	......	......
Heat stroke	......	......	......	......	......	......	7	1.42	......	......	......	......	1	.26	......	......	......	......
Lightning stroke	......	......	......	......	......	......	......	......	......	......	......	......	1	.26	......	......	......	......
Venomous bites, stings, and wounds	17	3.96	......	......	......	......	19	3.86	......	......	......	......	7	1.83	1	.26	......	......
Abrasions, blisters, burns, and scalds	18	4.19	......	......	......	......	58	11.78	......	......	......	......	26	6.78	......	......	......	......
Compression and concussion of brain	3	.70	......	......	......	......	1	.20	......	......	......	......	......	......	......	......	......	......
Contusions and sprains	102	23.76	......	......	......	......	111	22.54	......	......	......	......	150	39.12	......	......	......	......
Dislocations	3	.70	......	......	1	.23	2	.41	......	......	......	......	3	.78	2	.52	......	......
Fractures (not shot)	17	3.96	......	......	1	.23	18	3.65	......	......	......	......	38	9.91	4	1.04	......	......
Herniæ	11	2.56	1	.23	......	......	7	1.42	......	......	......	......	33	8.61	15	3.91	......	......
Wounds, contused, lacerated, and punctured	23	5.36	......	......	......	......	58	11.78	......	......	......	......	32	8.35	......	......	......	......
Wounds, incised	8	1.86	......	......	......	......	58	11.78	1	.20	......	......	16	4.17	1	.26	......	......
Wounds, gunshot	7	1.63	......	......	2	.47	20	4.06	3	.61	8	1.62	6	1.56	1	.26	1	.26
Secondary results of injury	5	1.16	1	.23	......	......	1	.20	......	......	......	......	23	6.00	8	2.09	......	......
Other injuries	17	3.96	1	.23	1	.23	15	3.05	......	......	......	......	17	4.43	1	.26	4	1.04
Total for injuries	236	54.97	3	.70	11	2.56	376	76.35	4	.81	8	1.62	360	93.90	33	8.61	5	1.30
Total for diseases and injuries	3,938	917.31	58	13.51	67	15.61	8,308	1,686.90	13	2.64	119	24.16	4,040	1,053.73	169	44.08	54	14.08

INTERNATIONAL TABLE I.—*Examination of recruits during the year 1902.*

No.		White.	Colored.	Total.
1	Total number recruits examined	42,183	3,035	45,218
	Of each 1,000 of these:			
2	Were accepted for service	658.80	786.16	667.34
3	Were rejected for underheight	.95	.99	.95
4	Were rejected for disabilities	255.29	171.33	249.57
	Of each 1,000 accepted recruits the heights were as follows (in inches):			
5	Under 61	.32	.84	.36
6	61 to 62	.40	.42	.40
7	62 to 63	1.51	2.93	1.62
8	63 to 64	11.51	10.06	11.40
9	64 to 65	87.69	99.33	88.62
10	65 to 66	125.73	137.89	126.69
11	66 to 67	162.72	171.42	163.41
12	67 to 68	177.08	189.86	178.09
13	68 to 69	158.98	147.11	158.04
14	69 to 70	123.14	117.77	122.71
15	70 to 71	76.11	70.41	75.66
16	71 to 72	40.05	31.85	39.40
17	72 to 73	22.31	14.25	21.67
18	73 to 74	8.89	3.35	8.45
19	74 upward	3.56	2.51	3.48
	Causes of rejection (exclusive of underheight) expressed in ratios per 1,000 of examined recruits:			
20	Physical debility	1.23	.99	1.22
21	Tuberculosis of lungs or other organs	3.15	.66	2.99
22	Imperfect vision	33.31	18.12	32.28
23	Heart disease	21.34	11.53	20.68
24	Goiter	.40	.66	.42
25	Varicose veins, varicocele, hemorrhoids	37.03	11.20	35.29
26	Hernia	11.02	8.24	10.84
27	Flat feet	3.80	3.63	3.78

INTERNATIONAL TABLE III.—*Movements of sick by branches of military service and by months, 1902.*

	Absolute numbers.					Proportions per 1,000.			
			Sick disposed of—			In 1,000 of mean strength there were—		In 1,000 of sick disposed of there were[a]—	
	Mean strength.	Sick admissions.	Total.[a]	As fit for duty (recovered).[a]	By death.	Total sick admissions.	Deaths.	Fit for duty (recovered).	Deaths.
ARM OF SERVICE.									
Infantry	33,337	65,692	....	....	629	1,970.54	18.87	....	....
Cavalry	14,676	28,319	....	....	224	1,929.61	15.27	....	....
Artillery	17,058	24,695	....	....	123	1,447.71	7.21	....	....
Ordnance	719	564	....	....	6	784.42	8.34	....	....
Engineers	1,175	2,355	....	....	21	2,004.26	17.87	....	....
Signal Corps	761	745	....	....	8	978.98	10.51	....	....
Medical Department	4,293	3,938	....	....	67	917.31	15.61	....	....
Philippine scouts	4,925	8,308	....	....	119	1,686.90	24.16	....	....
All others	3,834	4,040	....	....	54	1,053.73	14.08	....	....
MONTH.									
January	88,576	12,569	....	....	84	141.90	.95	....	....
February	86,987	10,888	....	....	86	125.17	.99	....	....
March	84.686	11,341	....	....	102	133.92	1.20	....	....
April	82,794	12,079	....	....	88	145.89	1.06	....	....
May	81,744	12,780	....	....	104	156.32	1.27	....	....
June	80,580	12,826	....	....	149	159.17	1.85	....	....
July	79,903	13,362	....	....	153	167.22	1.91	....	....
August	79,764	12,470	....	....	137	156.32	1.72	....	....
September	79,191	10,884	....	....	98	137.44	1.24	....	....
October	78,919	10,314	....	....	95	130.69	1.20	....	....
November	73,994	10,172	....	....	90	137.47	1.22	....	....
December	72.202	8,971	....	....	65	124.25	.90	....	....

[a] Information not tabulated.

INTERNATIONAL TABLE VI.—*Admissions of important diseases by branches of military service, 1902.*

No.	Diseases of the international nosological table.	Absolute number of admissions.									Admissions per 1,000 of mean strength.								
		Infantry.	Cavalry.	Artillery.	Ordnance.	Engineers.	Signal Corps.	Medical Department.	Philippine scouts.	All others.	Infantry.	Cavalry.	Artillery.	Ordnance.	Engineers.	Signal Corps.	Medical Department.	Philippine scouts.	All others.
1	Alcoholismus acutus, including delirium tremens	865	216	571	22	22	15	72	6	41	25.95	14.72	33.47	30.60	18.72	19.71	16.77	1.22	10.69
2	Bronchitis, all *a*	1,714	817	1,650	51	74	12	128	201	169	51.42	55.67	96.73	70.92	62.98	15.77	29.82	40.82	44.08
3	Cholera Asiatica	231	122	5	....	6	5	32	83	1	6.93	8.31	.29	......	5.11	6.57	7.45	16.85	.26
4	Cholera nostras *b*	....	....	....	....	....	....	....	....	....	......	......	......	......	......	......	......	......	......
5	Diphtheria	7	3	4	1	1	....	....	....	5	.21	.20	.23	1.39	.85	......	......	......	1.30
6	Dysenteria	3,190	881	217	7	144	70	320	123	58	95.70	60.03	12.72	9.73	122.55	91.99	74.54	24.98	15.13
7	Erysipelas	22	9	22	1	2	....	3	1	....	.66	.61	1.29	1.39	1.70	......	.70	.20	......
8	Febris intermittens (malaria)	9,912	3,154	1,303	26	290	87	353	3,032	253	297.33	214.91	76.39	36.16	246.81	114.32	82.23	615.63	65.99
9	Febris recurrens *c*	1,811	806	270	....	61	29	144	381	43	54.42	54.91	15.83	......	51.92	38.11	33.54	77.36	11.21
10	Gonorrhea	4,000	1,959	1,792	3	152	51	220	182	250	119.99	133.48	105.05	4.17	129.36	67.02	51.25	36.96	65.21
11	Hernia	146	71	84	3	4	2	11	7	33	4.38	4.84	4.92	4.17	3.40	2.63	2.56	1.42	8.61
12	Influenza	299	186	361	18	14	9	48	15	98	8.97	12.67	21.16	25.04	11.91	11.83	11.18	3.05	25.56
13	Insolatio (hitzschlag, coup de chaleur)	55	9	11	....	2	....	....	7	1	1.65	.61	.64	......	1.70	......	......	1.42	.26
14	Meningitis cerebro spinalis epidemica	2	2	1	....	....	....	....	....	1	.06	.14	.06	......	......	......	......	......	.26
15	Morbilli	309	78	310	....	14	8	23	35	387	9.27	5.31	18.17	......	11.91	10.51	5.36	7.11	100.94
16	Parotitis epidemica	452	115	294	1	6	1	21	191	195	13.56	7.84	17.23	1.39	5.11	1.31	4.89	38.78	50.86
17	Pneumonia crouposa sive lobaris	121	40	60	1	9	1	6	21	17	3.63	2.73	3.52	1.39	7.66	1.31	1.40	4.26	4.43
18	Rheumatismus articulorum	403	177	175	6	32	9	35	20	21	12.09	12.06	10.26	8.34	27.23	11.83	8.16	4.06	5.48
19	Scarlatina	4	1	5	....	....	....	....	....	8	.12	.07	.29	......	......	......	......	......	2.09
20	Scorbutus	....	....	....	....	....	....	....	....	....	......	......	......	......	......	......	......	......	......
21	Syphilis	970	341	337	3	30	11	44	20	51	29.10	23.23	19.76	4.17	25.53	14.46	10.25	4.06	13.30
22	Trachoma *b*	....	....	....	....	....	....	....	....	....	......	......	......	......	......	......	......	......	......
23	Tuberculosis pulmonum	169	49	56	1	9	4	21	24	21	5.07	3.34	3.28	1.39	7.66	5.26	4.89	4.87	5.48
24	Tuberculosis ceterorum organorum *b*	....	....	....	....	....	....	....	....	....	......	......	......	......	......	......	......	......	......
25	Typhus abdominalis	198	118	160	....	30	3	25	9	22	5.94	8.04	9.38	......	25.53	3.94	5.82	1.83	5.74
26	Typhus exanthematicus *b*	....	....	....	....	....	....	....	....	....	......	......	......	......	......	......	......	......	......
27	Variola	40	9	10	....	1	1	6	20	18	1.20	.61	.59	......	.85	1.31	1.40	4.06	4.70
28	Morbi auris	479	186	210	5	16	3	36	14	50	14.37	12.67	12.31	6.95	13.62	3.94	8.39	2.84	13.04
29	Morbi cordis	221	111	91	3	10	1	25	10	39	6.63	7.56	5.33	4.17	8.51	1.31	5.82	2.03	10.17
30	Morbi cutis	5,298	2,359	1,824	28	114	40	169	683	181	158.93	160.71	106.93	38.94	97.02	52.57	39.37	138.68	47.21
31	Morbi mentis	79	21	17	1	2	...	9	4	5	2.37	1.43	1.00	1.39	1.70	......	2.10	.81	1.30
32	Morbi oculi	589	253	288	4	29	11	58	69	48	17.67	17.24	16.88	5.56	24.68	14.46	13.51	14.01	12.52
33	Morbi systemat. urin. et sexual (excl. ven. et syphilis)	702	311	362	7	31	11	73	39	77	21.06	21.19	21.22	9.74	26.38	14.46	17.00	7.92	20.08

a Acute not tabulated separately.

b Not tabulated separately.

c Including malarial cachexia.

INTERNATIONAL TABLE VII.—*Admissions of important diseases by months (absolute numbers), 1902.*

No.	Diseases of the international nosological table.	Admissions by months.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	Alcoholismus acutus, including delirium tremens	153	144	151	166	157	148	141	142	156	159	159	154
2	Bronchitis, all[a]	509	575	475	456	378	270	295	278	356	371	403	450
3	Cholera, Asiatica	....	....	....	42	36	103	103	73	40	19	53	16
4	Cholera, nostras[b]	....	....	....	....	....	....	....	....	....	....	....	....
5	Diphtheria	3	....	2	1	5	....	2	3	3	1	....	1
6	Dysenteria	471	387	367	407	500	470	570	549	412	329	309	239
7	Erysipelas	5	8	15	5	8	1	2	3	2	4	2	5
8	Febris intermittens (malaria)	1,947	1,475	1,611	1,936	2,060	1,762	1,570	1,343	1,305	1,185	1,155	1,061
9	Febris recurrens[c]	342	272	220	309	336	326	385	381	277	212	253	235
10	Gonorrhea	771	687	703	680	731	716	730	835	722	672	734	628
11	Hernia	39	28	24	29	32	28	29	41	32	24	34	21
12	Influenza	172	144	167	165	80	60	47	16	65	22	30	80
13	Insolatio (hitzschlag, coup de chaleur)	6	3	10	12	5	8	13	14	1	6	2	5
14	Meningitis cerebro spinalis epidemica	....	....	2	1	....	1	1	....	....	....	....	1
15	Morbilli	168	276	266	205	131	69	18	12	3	3	1	12
16	Parotitis epidemica	98	123	234	244	225	105	78	34	23	7	21	84
17	Pneumonia crouposa sive lobaris	27	34	37	31	22	12	17	21	19	21	14	21
18	Rheumatismus articulorum	95	75	88	76	83	73	71	68	74	74	59	45
19	Scarlatina	1	6	3	6	1	....	....	1	....	....	....	....
20	Scorbutus	....	....	....	....	....	....	....	....	....	....	....	....
21	Syphilis	197	172	144	152	136	123	159	134	159	139	158	134
22	Trachoma[b]	....	....	....	....	....	....	....	....	....	....	....	....
23	Tuberculosis pulmonum	42	33	25	24	38	36	30	27	30	30	18	21
24	Tuberculosis ceterorum organorum[b]	....	....	....	....	....	....	....	....	....	....	....	....
25	Typhus abdominalis	26	22	52	29	27	34	40	65	78	81	67	44
26	Typhus exanthematicus[b]	....	....	....	....	....	....	....	....	....	....	....	....
27	Variola	9	18	20	25	15	2	2	2	3	5	1	3
28	Morbi auris	110	102	109	87	90	83	89	69	65	76	63	56
29	Morbi cordis	47	43	39	49	33	31	45	38	41	48	53	44
30	Morbi cutis	1,029	864	905	967	897	928	908	1,000	858	862	802	676
31	Morbi mentis	9	12	16	20	6	13	12	18	9	14	5	4
32	Morbi oculi	137	117	135	134	117	86	89	112	109	107	111	95
33	Morbi systemat. urin. et sexual (excl. ven. et syphilis)	137	119	137	161	132	148	129	146	152	123	100	129

[a] Acute not tabulated separately.

[b] Not tabulated separately.

[c] Including malarial cachexia.

Respectfully submitted.

R. M. O'REILLY,
Surgeon-General, U. S. Army.

Hon. ELIHU ROOT,
Secretary of War.

ARMY MEDICAL LIBRARY

REPORT

OF THE

SURGEON-GENERAL OF THE ARMY

TO THE

SECRETARY OF WAR

FOR THE

FISCAL YEAR ENDING JUNE 30, 1904.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1904.

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TABLE OF CONTENTS.

Page.

Financial statement 5
Artificial limbs and apparatus........ 9
Appliances and trusses 9
Care of destitute patients in the Providence Hospital, Washington, D. C 9
Medical officers 10
The Army Medical School 11
Contract surgeons 14
Contract dental surgeons........ 15
    Dental diseases and injuries........ 15
Hospital Corps 19
    Companies of Instruction, Hospital Corps........ 21
Exhibit of the Medical Department at the Louisiana Purchase Exposition, St. Louis, Mo 23
Army Nurse Corps 24
Medical department of the militia 25
Hospital construction and repair 26
Medical and hospital supplies 28
Maneuvers........ 30
Special sanitation 48
Recruiting 49
Discharges for disability 52
Health of the Army 52
Invaliding from the Philippine Islands 54
Racial prevalence of disease and injury in the Army........ 56
Seasonal prevalence of disease in the Army........ 59
Prevalence of special diseases:
    Scarlet fever 59
    Measles........ 60
    Mumps 60
    Smallpox 60
    Influenza 60
    Dengue........ 60
    Yellow fever........ 61
    Diphtheria 67
    Malarial fevers 67
    Typhoid fever 68
    Tuberculosis 79
    Leprosy 81
    Beri-beri 85
    Bubonic plague 85
    Intestinal diseases 85
    Venereal diseases 89
    Methyl alcohol poisoning 92
    Filariasis 92
    Asiatic cholera 93
    Alcoholism 93
    Insanity 94
External causes 94
    Gunshot wounds 96
Sanitary conditions........ 103
Surgical operations for disease and injury 113
Report of Maj. W. H. Arthur, surgeon, U. S. Army, on the surgery of old men. 115

	Page.
Extracts from report of Maj. J. M. Banister, surgeon, U. S. Army, on the results of surgery in the Philippine Islands	116
Report of Maj. Walter D. McCaw, surgeon, U. S. Army, who attended the Eleventh International Congress of Hygiene and Demography	117
Report of nutrition investigation by Lieut. Wallace DeWitt, assistant surgeon, U. S. Army	118
The general hospitals:	
U. S. Army General Hospital, Presidio of San Francisco, Cal	119
U. S. Army General Hospital, Fort Bayard, N. Mex	121
U. S. Army General Hospital, Washington Barracks, D. C	127
Army and Navy General Hospital, Hot Springs, Ark	127
First Reserve Hospital, Manila, Philippine Islands	127
Army Medical Museum	130
Library of the Surgeon-General's Office	133
Classification of diseases	134
Uniformity of medico-military statistics	136
Conclusions	137
Statistical tables	137
International tables	137

REPORT

OF

THE SURGEON-GENERAL.

WAR DEPARTMENT,
OFFICE OF THE SURGEON-GENERAL,
Washington, D. C., August 31, 1904.

SIR: I have the honor to report upon the Medical Department of the Army during the fiscal year ended June 30, 1904, beginning with a statement of finances.

FINANCIAL STATEMENT, 1904.[a]

Medical and hospital department, 1904.

Appropriated by act approved March 2, 1903	$450,000.00	
Transferred from medical and hospital department, 1902, by act approved April 27, 1904	200,000.00	
		$650,000.00
Refundments on account of supplies transferred:		
To Quartermaster's Department, U. S. Army	789.00	
To Navy Department	1,966.53	
To States and Territories for use of organized militia	43,968.22	
Refundments on account of sales to civil government, Philippine Islands	2,299.36	
Other refundments during the year (including transfer settlements by Treasury Department to adjust appropriations, $759.79)	1,052.37	
		50,075.48
Total to be accounted for		700,075.48
Disbursed during the year:		
Expenses of medical supply depots	645.05	
Medical supplies	303,632.50	
Medical attendance and medicines	9,871.20	
Medical expenses of recruiting	40,069.93	
Pay of nurses	1,831.40	
Pay of other employees	131,116.69	
Washing of hospital linen	22,541.59	
Expressage	1,082.93	
Notary fees	48.50	
		510,839.79

---

[a] The disbursements in this statement include settlements with public creditors made by the accounting officers of the Treasury and charged by them to these appropriations.

Balances on hand June 30, 1904:		
In United States Treasury and in transit thereto	$86,674.06	
In hands of disbursing officers—		
New York City	65,709.88	
Washington, D. C	13,315.89	
St. Louis, Mo	10,669.82	
San Francisco, Cal	7,670.25	
Manila, P. I	5,157.00	
Peking, China	38.79	
		$189,235.69
Total accounted for		700,075.48

Medical and hospital department, 1903.

Balance on hand July 1, 1903, act of June 30, 1902		$604,596.27
Refundments on account of supplies transferred:		
To Navy Department	$2,287.40	
To Ordnance Department, U. S. Army	2.50	
Refundment on account of sale to civil government, Philippine Islands	572.18	
Other refundments during the year	4,154.77	
		7,016.85
Total to be accounted for		611,613.12
Disbursed during the year:		
Expenses of medical supply depots	128.62	
Medical supplies	337,336.64	
Medical attendance and medicines	2,716.94	
Medical expenses of recruiting	2,991.89	
Pay of nurses	242.23	
Pay of other employees	2,014.67	
Washing of hospital linen	2,437.56	
Expressage	71.13	
Notary fees	31.25	
		347,970.93
Transferred by Treasury settlement to adjust appropriations		759.79
Balance on hand June 30, 1904, in United States Treasury		262,882.40
Total accounted for		611,613.12

Medical and hospital department, 1902.

Balance on hand July 1, 1903, act of March 2, 1901		$426,881.47
Refundments during the year		180.49
Total to be accounted for		427,061.96
Disbursed during the year:		
Medical supplies	$70.70	
Medical attendance and medicines	147.15	
Medical expenses of recruiting	6.00	
Pay of employees	7.00	
Washing of hospital linen	17.42	
By Treasury settlement with owner of lost check covering payment previously classified	36.50	
		284.77
Transferred to medical and hospital department, 1904, by act of April 27, 1904		200,000.00
Carried to surplus fund		226,777.19
Total accounted for		427,061.96

Medical and hospital department, 1901 and prior years.

Refunded during the year	$4.80
Carried to surplus fund	4.80

Medical and hospital department, certified claims.

Appropriated by act approved February 18, 1904	$33.80
Appropriated by act approved April 27, 1904	41.34
Total to be accounted for	75.14
Disbursed during the year	75.14

Reimbursement to contract nurses.

Balance on hand July 1, 1903, act of June 6, 1900	$3,278.98
Balance on hand June 30, 1904, in United States Treasury	3,278.98

Report of Army Board on origin and spread of typhoid fever, 1903–4.

Balance on hand July 1, 1903, act of March 3, 1903		$24,420.00
Disbursed during the year		1,729.46
Balances on hand June 30, 1904:		
In United States Treasury	$22,420.00	
In hands of disbursing officer, Washington, D. C	270.54	
		22,690.54
Total accounted for		24,420.00

Artificial limbs, 1904.

Appropriated by act approved March 3, 1903	$152,000.00
Disbursed during the year	141,269.27
Balance on hand June 30, 1904	10,730.73

Artificial limbs, 1903.

Balance on hand July 1, 1903, act approved June 28, 1902		$58,371.76
Disbursed during the year	$6,152.92	
Transferred by Treasury settlement to adjust appropriations	50.00	
		6,202.92
Balance on hand June 30, 1904, in United States Treasury		52,168.84

Artificial limbs, 1902.

Balance on hand July 1, 1903, act approved March 3, 1901	$4,917.17
Refunded during the year by Treasury settlement to adjust appropriations	50.00
Total to be accounted for	4,967.17
Disbursed during the year	135.18
Carried to surplus fund	4,831.99
Total accounted for	4,967.17

Artificial limbs, certified claims.

Appropriated by act approved February 18, 1904	$29.62
Disbursed during the year	29.62

Appliances for disabled soldiers, 1904.

Appropriated by act approved March 3, 1903	$2,000.00
Disbursed during the year	1,236.10
Balance on hand June 30, 1904	763.90

Appliances for disabled soldiers, 1903.

Balance on hand July 1, 1903, act approved June 28, 1902	$924.09
Disbursed during the year	101.00
Balance on hand June 30, 1904	823.09

Appliances for disabled soldiers, 1902.

Balance on hand July 1, 1903, act approved March 3, 1901	$462.02
Carried to surplus fund	462.02

Army Medical Museum, 1904.

Appropriated by act approved March 2, 1903	$5,000.00
Disbursed during the year	4,088.71
Balance on hand June 30, 1904	911.29

Army Medical Museum, 1903.

Balance on hand July 1, 1903, act approved June 30, 1902	$1,462.38
Disbursed during the year	1,385.04
Balance on hand June 30, 1904	77.34

Army Medical Museum, 1902.

Balance on hand July 1, 1903, act approved March 2, 1901	$1,887.57
Carried to surplus fund	1,887.57

Library, Surgeon-General's Office, 1904.

Appropriated by act approved March 2, 1903	$10,000.00
Disbursed during the year	6,507.22
Balance on hand June 30, 1904	3,492.78

Library, Surgeon-General's Office, 1903.

Balance on hand July 1, 1903, act approved June 30, 1902	$2,201.53
Disbursed during the year	2,112.61
Balance on hand June 30, 1904	88.92

Library, Surgeon-General's Office, 1902.

Balance on hand July 1, 1903, act approved March 2, 1901	$18.33
Disbursed during the year	9.25
Carried to surplus fund	9.08
Total accounted for	18.33

Furnishing trusses to disabled soldiers (sections 1176, 1177, and 1178, Revised Statutes, and act of March 3, 1879).

Balance on hand July 1, 1903	$1,162.31
Drawn during the year	5,761.90
Total to be accounted for	6,924.21
Disbursed during the year	6,070.81
Balance on hand June 30, 1904	853.40
Total accounted for	6,924.21

General summary of all appropriations.

Balances on hand July 1, 1903	$1,130,583.88
Appropriated	624,866.66
Refunded	56,517.83
Total to be accounted for	1,811,968.37
Disbursed	1,029,997.82
Carried to surplus fund	233,972.65
Balances on hand June 30, 1904	547,997.90
Total accounted for	1,811,968.37

ARTIFICIAL LIMBS AND APPARATUS.

Under the laws relating to artificial limbs, apparatus, or commutation therefor, orders on manufacturers were given during the fiscal year for 36 artificial legs and 2 arms, and commutation certificates were issued for 159 cases of amputated leg, 116 amputated arm, 13 amputated foot, and for 2,410 cases of the loss of use of a limb.

Under the act of June 17, 1870, and subsequent amendments thereto, 22,895 disabled soldiers and sailors have been furnished artificial limbs or apparatus, or have received commutation in money, as follows: Total number benefited to June 30, 1904, 22,895; died, 9,371; dropped from rolls, 590; rejected after one or more payments, 552; remaining on rolls at the end of the fiscal year, 12,382.

Two-thirds of the periodical claims for the benefits under the artificial-limb laws for the three years commencing July 1, 1905, and ending June 30, 1908, become due in the fiscal year 1906. To meet these claims it is estimated that the sum of $450,000 will be required.

APPLIANCES AND TRUSSES.

One hundred and sixty-seven appliances were issued during the fiscal year, and 805 trusses were furnished and fitted.

CARE OF DESTITUTE PATIENTS IN THE PROVIDENCE HOSPITAL, WASHINGTON, D. C.

The act approved March 3, 1903, having appropriated $19,000 for the support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with Providence Hospital by the Surgeon-General of the Army, the relief afforded was as follows:

Patients in hospital July 1, 1903	114
Admitted during the year	1,053
Total number treated	1,167
Average number admitted per month	97
Number remaining in hospital June 30, 1904	98
Total number of days' treatment afforded	39,589
Average number of days' treatment per patient	34
Average number of patients treated per day	108
Longest term of treatment (days)	366
Shortest term of treatment (day)	1
Number of patients in hospital during the whole year	4

MEDICAL OFFICERS, UNITED STATES ARMY.

The number of medical officers allowed by law at present is 322, while the number in service June 30, 1904, was 307, leaving 15 vacancies at the end of the fiscal year.

The following changes occurred during the year:

Appointments.—Two colonels, assistant surgeons-general, appointed brigadier-generals in the line with a view to retirement as such; and 30 first lieutenants, assistant surgeons.

Promotions.—Four lieutenant-colonels, deputy surgeons-general, to be colonels, assistant surgeons-general; 4 majors, surgeons, to be lieutenant colonels, deputy surgeons-general; 5 captains, assistant surgeons, to be majors, surgeons; and 25 first lieutenants, assistant surgeons, to be captains, assistant surgeons.

Twenty-four first lieutenants, assistant surgeons, were examined for promotion during the fiscal year, 6 of whom failed to qualify, and under the law their promotion was suspended for one year, subject to reexamination at the end of that period. Of the 13 captains, assistant surgeons, examined, none failed to qualify.

Resignations.—Three first lieutenants, assistant surgeons.

Retirements.—Four colonels, assistant surgeons-general, 2 as brigadier-generals in the line; 1 major, surgeon; and 1 first lieutenant, assistant surgeon.

Army medical boards for the examination of candidates for appointment in the Medical Corps of the Army have been in session during portions of the last fiscal year in Washington, D. C., San Francisco, Cal., and Manila, P. I. The following is a summary of the work performed by each board:

Washington, D. C.:		
Number of candidates invited to appear		120
Declined to appear	11	
Failed to appear	20	
		31
Number of candidates examined		89
Approved		15
Physically disqualified		25
Withdrew		4
Rejected		45
San Francisco, Cal.:		
Number of candidates invited to appear		11
Declined to appear	1	
Failed to appear	3	
		4
Number of candidates examined		7
Approved		1
Physically disqualified		1
Withdrew		2
Rejected		3
Manila, P. I.:		
Number of candidates examined		5
Approved		1
Physically disqualified		2
Withdrew		1
Rejected		1

Of the 101 candidates examined by these boards, 17 were found physically and professionally qualified and approved for appointment in the Medical Corps of the Army, while 56 withdrew during the progress of the examination or were rejected at its conclusion, and 28 were rejected as physically disqualified for the service. The proportion of approved candidates shows a decrease when compared with the previous year, as only 16.83 per cent were successful during the last period, while the percentage of approved candidates examined by the board at Washington also decreased to 16.85 per cent, showing conclusively that the high standard of the examination is being fully maintained.

A bill to increase the efficiency and enlarge the Medical Department of the United States Army, so as to do away with the necessity of employing many contract surgeons, was prepared in this office and approved by The Honorable The Secretary of War, February 18, 1904. In this bill it is proposed to give the Medical Department of the Army like advantages in the way of promotion with the Medical Department of the Navy, in order that the former may obtain an equally desirable class of young officers, and thereby maintain the standard of medical education for the military service.

The increase desired affords approximately the same proportion in each grade as is now enjoyed in the Navy, which is considerably less than that enjoyed by the Medical Corps of the Army for many years prior to 1901. In the reorganization of February 2d of that year, notwithstanding the recommendations of the Dodge Commission and of the Surgeon-General for an increased proportion of medical officers, that proportion was not only not increased but actually decreased. With a less number than is now asked for the Medical Corps can not properly perform the duties with which it is charged by regulations. With a less proportion in the higher grades it can not successfully compete with the naval service to fill vacancies created. The substitution of regular medical officers for contract surgeons is absolutely necessary for the efficiency of the Medical Department from every standpoint. It is earnestly hoped that favorable action by Congress may be had in the near future on the bill, the passage of which means so much to the Government and to the Medical Corps of the Army.

THE ARMY MEDICAL SCHOOL.

The last session of the Army Medical School began November 1, 1903, and ended April 5, 1904, with a class of 27 student officers, all of whom were assistant surgeons recently appointed in the Medical Corps of the Regular Army.

The personnel of the faculty during the eighth session was as follows:

Col. Charles L. Heizmann, assistant surgeon-general U. S. Army, president of the faculty and professor of military medicine.

Maj. William H. Arthur, surgeon, U. S. Army, instructor in the duties of medical officers.

Maj. William C. Borden, surgeon, U. S. Army, professor of military surgery and X-ray work.

Maj. Walter D. McCaw, surgeon, U. S. Army, professor of military hygiene and tropical diseases.

Maj. James D. Glennan, surgeon, U. S. Army, professor of ophthalmology and optometry.

Capt. F. P. Reynolds, assistant surgeon, U. S. Army, instructor in hospital-corps drill and medical department administration.

Capt. C. R. Darnall, assistant surgeon, U. S. Army, professor of sanitary chemistry and operative surgery.

Lieut. James Carroll, assistant surgeon, U. S. Army, professor of bacteriology and clinical microscopy.

In addition to the regular schedule of subjects, Brig. Gen. G. B. Davis, Judge-Advocate-General, U. S. Army, gave a course of most interesting lectures on military law, and one lecture was given on the library of the Surgeon-General's Office by Robert Fletcher, M. D., F. R. C. S., assistant librarian of the Surgeon-General's Office. Demonstrations in the management of the machines for producing X-rays and in taking and developing skiagraphs were given by Dr. W. M. Gray of the Army Medical Museum, under the direction of Major Borden.

The faculty agreed upon and arranged a schedule of subjects and rating for same for the determination of the proficiency of the student officers, as follows:

Hours.	Subject.	Rating.	
		Min.	Max.
100	Duties of medical officers, medical department administration, and customs of the service	700	1,000
20	Military hygiene	560	800
180	Clinical microscopy and bacteriology	560	800
20	Military surgery	490	700
15	Tropical medicine	420	600
120	Sanitary chemistry	420	600
60	Hospital corps drill	350	500
20	Operative surgery	280	400
30	Ophthalmology and optometry	280	400
	Deportment	280	400
9	Military medicine	210	300
20	X-ray work	210	300
40	Equitation	140	200
	Total	4,900	7,000

In order to be rated proficient and receive a certificate a student officer had to obtain 4,900 points, or 70 per cent. Those who received 6,300 points (90 per cent) or over were rated as proficient with honor. It was announced that a student officer who obtained less than 70 per cent would not receive a certificate of proficiency.

The courses of lectures and laboratory instruction were completed as posted, excepting that of equitation. The instructor originally appointed, Capt. H. S. Trout, Second Cavalry, was relieved in December in order to accompany his regiment to the Philippines, and no one was assigned to take his place until January 25, 1904, when Capt. W. W. Whitside, Fifteenth Cavalry, resumed the instruction in riding. Owing to this interruption and the patent difference in the system of marking followed by these two officers and the difficulty of obtaining uniform ratings in this course under any circumstances, the faculty decided prior to the final examinations to strike out all marks on equitation, and, in order not to disturb the total, to add to deportment the maximum and minimum marks allowed for riding.

The best of discipline was maintained among the students throughout the session, a few trifling lapses in deportment having been reported by the instructors. All were assiduous in their studies, prompt in attendance, and conscientious in the performance of all prescribed duties, for it was primarily impressed upon them that every action relative to the school would be looked upon by the authorities as one of duty.

Only one officer failed to reach the total minimum required, while the others attained points considerably above, six receiving 90 per cent or over, thereby being rated as proficient with honor.

It is the unanimous opinion of the faculty that the title "professor" be changed to "instructor" in order to conform to the custom of all other service schools.

The final examinations began March 21, 1904, upon completion of which the faculty determined the relative rating of the student officers and their final standing in the class.

"The Alexander H. Hoff memorial gold medal" was awarded to First Lieut. Lloyd L. Smith, assistant surgeon, U. S. Army, the other honor graduates being Lieutenants Vedder, Pipes, Miller, Siler, and Noble.

The closing exercises were held in the hall of the National Museum, April 5, 1904, and I desire to express the thanks of the faculty and the student officers to the Board of Regents for their courtesy in extending to us the privileges of the hall for the occasion.

The diplomas were presented by The Honorable The Secretary of War, the memorial medal by Lieut. Gen. Adna R. Chaffee, Chief of Staff, U. S. Army, and the address made by Prof. Charles A. L. Reed, M. D., president of the Pan-American Medical Association and ex-president of the American Medical Association.

The following is an outline of the plan, approved by the Secretary of War to take effect July 1, 1904, by which all candidates for commission in the Medical Corps of the Army may receive instruction as contract surgeons after examination and by which the final recommendations for commissions shall be contingent upon their successfully passing the examination of the school:

> The examination for appointment as assistant surgeon in the Army will consist of two parts—a preliminary examination and a final or qualifying examination, as hereinafter described, with a course of instruction at the Army Medical School intervening.
>
> Preliminary examination will be required as follows:
>
> (*a*) Physical.
>
> The physical examination must be thorough. Candidates who fall below 64 inches in height will be rejected. Each candidate is also required to certify "that he labors under no physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required." Errors of refraction, when not excessive, and not accompanied by ocular disease, and when correctible by appropriate glasses, are not causes for rejection.
>
> (*b*) Written examination on the following subjects:
>
> Mathematics (arithmetic, algebra, and plane geometry), geography, history (especially of the United States), general literature, Latin grammar, and the reading of easy Latin prose; English grammar, orthography, and composition will be determined from the applicant's examination papers.
>
> (*c*) Written examination on the following subjects:
>
> Anatomy, physiology, chemistry and physics, materia medica and therapeutics, and normal histology.
>
> The preliminary examinations will be conducted by boards of medical officers at the larger military stations in the United States by questions in the several subjects sent from this office. Formal invitations will be extended to eligible applicants to appear at the most convenient point at which a board is convened and a date will be fixed for such appearance, which will be uniform throughout the country. No allowances can be made for the expenses of applicants undergoing preliminary examinations.
>
> Applicants who attain a general average of not less than 80 per cent in the preliminary examinations will be employed as contract surgeons and ordered to the Army Medical School in this city for instruction as candidates for admission to the Medical

Corps of the Army. If, however, a greater number of applicants attain the required average than can be accommodated at the school, the requisite number will be selected according to relative standing in the examination. An applicant thus selected will, prior to employment under contract, be required to make an agreement to accept commission as assistant surgeon if found qualified in final examination and that he will serve at least five years thereafter, unless sooner discharged. Contracts with candidates undergoing instruction at the Army Medical School will provide for pay at the rate of $100 per month, without other compensation or allowances, except when traveling under orders, when the usual travel pay for officers will be allowed.

An applicant failing in one preliminary examination may be allowed another after the expiration of one year, but not a third. Withdrawal from examination during its progress, except because of sickness, will be deemed a failure.

The course of instruction at the Army Medical School will be of eight months' duration, commencing on the 1st of October next succeeding the preliminary examination; it will consist of lectures and practical work in such subjects as are peculiarly appropriate to the duties which a medical officer of the Army is ordinarily called upon to perform. During this course of instruction the candidates will be held under military discipline, and character, habits, and general deportment closely observed; if for any reason a candidate should be deemed undesirable his contract may at any time be annulled by the Surgeon-General.

At the close of the term of the Army Medical School all candidates will be subjected to a rigid physical examination and those found physically qualified will be admitted to the final or qualifying examination for admission to the Medical Corps; this examination will comprise the subjects taught in the school, together with surgery, practice of medicine, diseases of women and children, obstetrics, hygiene, bacteriology, and pathology. Candidates will also be marked in general aptitude as determined from their service at the school. Candidates claiming a knowledge of ancient or modern languages, higher mathematics, or scientific branches other than medical, may be examined in the same and due credit given in determining relative standing of those commissioned. The candidates standing highest in this examination who attain a general average of 80 per cent and upward will be selected for commission in the order of their standing to fill existing vacancies in the Medical Department. Candidates who attain the requisite general average of 80 per cent and upward who fail to receive commissions because of lack of vacancies will be given certificates of graduation at the school and will be preferred for selection for volunteer commissions and for employment as contract surgeons, and they will be given an opportunity to take the qualifying examination with the next succeeding class.

Applications for permission to appear for examination, prepared in accordance with requirements before mentioned, should be sent to the Surgeon-General, U. S. Army, and when completed will be filed in this office until the next succeeding preliminary examination shall have been decided upon, when formal invitations to appear before a board will be issued. Applicants are advised to file the necessary papers as early as practicable, in order that the places of examination may be arranged most conveniently to applicants, due regard being had to the interests and necessities of the service.

It is thought that this course will enable a better estimate to be made of the probable value of a young medical man for his future duties as a medical officer of the Army and thus have the assistant surgeon proficient in his military duties as administrator, sanitarian and officer of the Army at the time he is commissioned.

CONTRACT SURGEONS, U. S. ARMY.

There were 229 contract surgeons in service at the close of the fiscal year ended June 30, 1903. During the past fiscal year contracts were made with 37 physicians, while 82 contracts were annulled and 2 were terminated by death, leaving 182 in service June 30, 1904.

As in the preceding year, the new contracts made were usually with physicians who had already served as contract surgeons or as medical volunteer officers, and the greater number of these are still on duty in the Philippine Islands. The net loss in number of contract surgeons for the fiscal year was 47, and the number remaining in service is the lowest since July, 1898.

Contract Surg. Frank L. R. Tetamore was drowned off the coast of Tayabas, P. I., February 9, 1904; and Contract Surg. Thomas J. O'Reilly, died of tuberculous meningitis, at the general hospital, Fort Bayard, N. Mex., May 29, 1904.

CONTRACT DENTAL SURGEONS, U. S. ARMY.

Thirty contract dental surgeons are allowed by the act of Congress approved February 2, 1901, and this number has been continuously employed during the fiscal year ended June 30, 1904. One contract was annulled, and the vacancy thus created was filled the next day. Seventeen dental surgeons are at present serving in the Philippines Division and 13 in the United States.

The percentage of dental diseases and injuries in the Pacific Islands and China is 99.23, compared with 44.85 and 24.66, the respective percentages for the United States and Cuba and Porto Rico. The percentage of operations in each country approximates closely the relative proportions for disease and injury, being 105.87 for the Pacific Islands and China, 52.14 for the United States, and 23.38 for Cuba and Porto Rico.

The number of restorations of teeth by crowning and bridging and the number of artificial dentures shows a decided gain over the corresponding period last year. In 1902 restorations by bridges and crowns numbered 506, in 1903, 1,002; while in 1902 restorations by artificial dentures amounted to 146 and in the past year 314 are recorded. The whole number of dental caries treated was almost exactly the same as last year.

The following tabulated statistics showing the prevalence of dental caries and other dental and oral diseases among the troops, indicate the great amount of valuable work that is being done by the dental surgeons, and would also seem to show that sufficient care is not being exercised in the selection of recruits as far as concerns the condition of the teeth. Considering the great importance of the condition of the teeth in the proper mastication of the food and the prevention of digestive and intestinal disorders, and also that a diseased oral cavity opens the way to various infections, it would seem that the requirements for enlistment laid down in the manual, as regards the teeth, should be modified. At least eight sound opposing molars, two on each side in each jaw, should be required, and the condition of the other teeth as regards caries should be taken into account:

Diseases and injuries treated during the year ending June 30, 1904.

DISEASES AND INJURIES OF THE TEETH AND GUMS.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Abrasions, mechanical	6	19	....	25
Abscess of the jaw, associated with impacted teeth	15	17	....	32
Calcification of the pulp	3	2	....	5
Cysts of the jaw, associated with devitalized teeth	....	1	....	1
Defective fillings	22	35	2	59
Dental caries	13,596	16,919	241	30,756
Dento-alveolar abscess	1,260	1,135	13	2,408
Devitalized pulp	768	1,060	....	1,828
Dislocation of teeth	12	....	....	12
Erosion, chemical	14	13	....	27
Erupting teeth, painful	41	17	....	58
Fracture of the teeth	66	71	....	137

Diseases and injuries treated during the year ending June 30, 1904—Continued.

DISEASES AND INJURIES OF THE TEETH AND GUMS—Continued.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Hemorrhage following extraction	5			5
Hypertrophy of the gums	9	42		51
Hypertrophy of the pulp	5	8		13
Hypercementosis		5		5
Impacted teeth	22	20		42
Irregularities of the teeth	18	10		28
Necrosis of the teeth	152	273		425
Pericementitis:				
Acute	84	121	2	207
Chronic	64	57	3	124
Pulp nodules		1		1
Pulpitis:				
Acute	641	985	6	1,632
Chronic	240	516	23	779
Pyorrhea alveolaris	165	107		272
Resorption of the alveolar process	18	25		43
Recession of the gums	34	28	25	87
Salivary deposits	1,371	1,379	59	2,809
Sensitive dentine	22	1		23
Supernumerary teeth	8	7	1	16
Others	94	461	2	557
Total	18,755	23,335	377	42,467

DISEASES AND INJURIES OF THE MOUTH AND JAWS.

Caries of the jaws		2		2
Empyema of the antrum (suppurative)	1	13		14
Fracture of the alveolar process, superior	3			3
Fracture of the jaw, inferior	7	9		16
Gingivitis:				
Simple	105	159	3	267
Ulcerative	18	12	1	31
Leucoplakia:				
Buccal		1		1
Lingual	1	1		2
Mucous engorgement of the antrum	1			1
Necrosis of jaws:				
Superior	2	5		7
Inferior	3	2		5
Neuralgia, facial	6	10		16
Periostitis	16	5	4	25
Stomatitis:				
Infectious	3	4		7
Syphilitic	3	9		12
Ulcerative	13	21		34
Tumors of the gums:				
Superior	1			1
Inferior	2			2
Others	14	47		61
Total	199	300	8	507

OPERATIONS ON THE TEETH AND GUMS.

Abscesses lanced	142	96	1	239
Excision of the gums	26	14		40
Pulp:				
Capped	23	2		25
Devitalized	729	1,994	5	2,728
Extirpated	821	1,529	2	2,352
Root canals filled with—				
Gold		1		1
Gutta-percha	984	1,166		2,150
Oxychloride cement	17	79		96
Salivary deposits removed	1,462	1,601	79	3,142
Teeth extracted	2,773	3,756	62	6,591
Teeth treated, medicated	2,744	2,881	17	5,642
Others	13	420	7	440
Total	9,734	13,539	173	23,446

Diseases and injuries treated during the year ending June 30—Continued.

OPERATIONS ON THE MOUTH AND JAWS.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Caries of the jaws:				
Superior	...	1	...	1
Inferior	...	1	...	1
Cleft palate—bony	...	1	...	1
Empyema of the antrum	3	5	...	8
Mucous engorgement of the antrum	1	...	...	1
Necrosis of the jaws:				
Superior	...	3	...	3
Inferior	1	1	...	2
Periostitis of the jaws, inferior	...	2	...	2
Tumors of the gums, inferior	1	...	...	1
Tumors of the jaws, inferior	...	1	...	1
Others	7	9	...	16
Total	13	24	...	37

RESTORATION OF THE TEETH BY FILLINGS.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Amalgam	7,428	5,644	51	13,123
Gold	1,187	906	13	2,106
Gutta-percha	275	386	2	663
Oxyphosphate	2,259	2,747	120	5,126
Others	23	13	...	36
Total	11,172	9,696	186	21,054

RESTORATIONS BY COMBINATION FILLINGS.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Gutta-percha and amalgam	130	79	...	209
Gutta-percha and oxyphosphate	82	267	...	349
Oxyphosphate and amalgam	236	903	...	1,139
Others	1	51	...	52
Total	449	1,300	...	1,749

RESTORATIONS BY BRIDGES AND CROWNS.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Bridges:				
Gold	29	76	...	105
Gold and porcelain	92	26	...	118
Reset	49	24	3	76
Others	4	16	...	20
Crowns:				
Gold shell	206	215	3	424
Logan	108	38	...	146
Richmond (gold and porcelain)	26	8	...	34
Reset	42	25	...	67
Others	5	7	...	12
Total	561	435	6	1,002

RESTORATIONS BY ARTIFICIAL DENTURES.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Aluminum, partial, vulcanite attachments	1	...	...	1
Gold, partial, vulcanite attachments	1	2	...	3
Vulcanite:				
Full	16	27	...	43
Partial	64	157	...	221
Broken plate repaired	15	31	...	46
Total	97	217	...	314

Diseases and injuries treated during the year ending June 30, 1904—Continued.

MECHANICAL APPLIANCES FOR FRACTURED JAWS.

	United States (continental).	Pacific Islands and China.	Cuba and Porto Rico.	Total.
Angle appliance	3	....	....	3
Gunning or Hayward splint, vulcanite	2	....	....	2
Kingsley splint, vulcanite, Marshall attachments	1	....	....	1
Metal splints	3	1	....	4
Others	....	4	....	4
Total	9	5	....	14

RECAPITULATION OF DISEASES AND OPERATIONS.

Mean strength of troops on duty during year 1903	42,264	23,818	1,561	67,643
Total diseases and injuries treated	18,954	23,635	385	42,974
Percentage	44.85	99.23	24.66	63.53
Total operations	22,035	25,216	365	47,616
Percentage	52.14	105.87	23.38	70.39

Summary of tables of susceptibility to dental caries in individual teeth of the United States Army as a whole.

Classification.	United States (continental).		Pacific Islands and China.		Cuba and Porto Rico.		Total.	
	Caries.	Per cent.	Caries.	Per cent.	Caries.	Per cent.	Caries.	Per cent.
Central incisors:								
Upper	1,121	8.24	1,381	8.16	31	12.86	2,533	8.24
Lower	65	.48	188	1.11	3	1.24	256	.83
Lateral incisors:								
Upper	925	6.80	1,119	6.61	30	12.45	2,074	6.74
Lower	68	.50	298	1.76	3	1.24	369	1.20
Cuspids:								
Upper	470	3.46	600	3.55	15	6.22	1,085	3.53
Lower	87	.64	412	2.44	....	....	499	1.62
First bicuspids:								
Upper	1,096	8.06	1,434	8.48	13	5.39	2,543	8.27
Lower	268	1.97	415	2.45	3	1.24	686	2.23
Second bicuspids:								
Upper	1,174	8.63	1,453	8.59	18	7.47	2,645	8.60
Lower	683	5.02	683	4.04	7	2.90	1,373	4.46
First molars:								
Upper	1,912	14.06	2,417	14.29	35	14.52	4,364	14.19
Lower	1,747	12.85	1,975	11.67	19	7.88	3,741	12.16
Second molars:								
Upper	1,321	9.72	1,594	9.42	21	8.71	2,936	9.55
Lower	1,648	12.12	1,744	10.31	23	9.54	3,415	11.10
Third molars:								
Upper	417	3.07	595	3.52	8	3.32	1,020	3.32
Lower	594	4.37	611	3.61	12	4.98	1,217	3.96
Total	13,596	....	16,919	....	241	....	30,756	....

SUMMARY.

	Number.	Per cent.
Upper	19,200	62.42
Lower	11,556	37.58
Total	30,756	....
Right	15,412	50.11
Left	15,344	49.89
Total	30,756	....

HOSPITAL CORPS.

At the date of last report, June 30, 1903, the strength of the hospital corps was as follows:

Sergeants, first class	279
Sergeants	313
Corporals	10
Privates, first class	1,668
Privates	762

Since then it has gained:

By enlistment	838
By transfer	455
Return from desertion	32

And lost during the same period:

By discharge by expiration of service	857
By discharge by order	120
By discharge by sentence of general court-martial	42
By discharge on surgeon's certificate	82
By transfer to line	9
By retirement	14
By death due to disease	14
By death due to suicide	3
By death due to drowning	2
By desertion	134

Leaving in service June 30, 1904:

Sergeants, first class	274
Sergeants	269
Corporals	19
Privates, first class	1,490
Privates	1,028

Sergeants, first class.—The vacancies existing in this grade June 30, 1903, and those occurring shortly thereafter were filled on August 1 of that year by the appointment of 31 sergeants who had received the highest marks in a competitive examination held in accordance with regulations.

During the year ended June 30, 1904, the hospital corps lost 38 sergeants, first class, as follows:

Discharged by expiration of service	14
Discharged by order	5
Discharged by sentence of court-martial	5
Discharged on surgeon's certificate	5
Died	3
Suicide	1
Deserted	1
Retired	4

To fill these vacancies a competitive examination was held from May 31 to June 6, 1904, simultaneously in all of the military departments located within the United States and in the Philippines Division.

Seventy-two applications were received from sergeants serving at posts within the United States to take this examination; of these, 5 were disapproved at this office for various reasons, 6 applicants withdrew from examination, 1 declined examination, and 1 failed to appear. Fifty-nine applicants completed the examination; of these, 8 were not recommended by the local board, 6 attained the percentage between 90 and 97.5, 21 a percentage between 80 and 89, 13 between 70 and 79, and 11 failed to attain a marking of 70 per cent.

In the Philippines Division 21 sergeants applied for examination for promotion, of whom 20 were approved and 1 disapproved. Eight of the applicants withdrew from the examination. Twelve of the applicants were fully examined and recommended for promotion by the local boards.

The proviso of the act of March 2, 1903 (appropriation for support of the Army), creating the grades of privates, first-class, and of privates, has proved entirely satisfactory in every way, and the experience of the past year has conclusively shown that this change has stimulated the men to attain the higher grade by conscientious theoretical study and a more thorough application of the knowledge by the daily routine work in the hospitals.

The numerous reports of the inspectors-general, special reports of commendation by line officers, and the granting of certificates of merit to many men of this corps are facts which strongly illustrate the general character of the men enlisted in the hospital corps.

Recruitment.—In the fall of 1903 it became apparent that recruits for the hospital corps would be urgently needed to supply the losses occurring during the next few months. The attending surgeons at New York, Boston, Philadelphia, Chicago, and San Francisco were at once directed to make special efforts to secure enlistments, for the reason that the number of enlistments for the corps made by recruiting officers of the line was far below the demands. In April, 1904, these instructions were repeated to all attending surgeons, and special instructions were given to the attending surgeon in New York City to enlist all desirable men who may present themselves without referring each case to this office, yet the number of enlistments did not supply the losses. The terms of service of 682 men expire between January 1, 1904, and December 31, 1904, requiring the enlistment of 57 per month.

The total loss to the corps from all causes from July 1, 1903, to June 30, 1904, was about 1,277 men. The enlistments from civil life during the same period were only 519, and the additional men required were necessarily obtained by transfer from the line. Only 202 members of the corps reenlisted therein on the day following discharge. No serious results have, however, thus far arisen from this dearth of enlistments from civil life, nor is there any apprehension felt on that account so long as the deficiencies can be made up by transfer from the line. These fluctuations in enlistments are seemingly due to a variety of causes, which, however, are not of a permanent nature.

The distribution of the hospital corps at the date of this report is as follows:

Departments.	Sergeants, first class.	Sergeants.	Corporals.	Privates, first class.	Privates.	Total.
California	10	18	....	56	27	111
Colorado	8	6	....	26	35	77
Columbia	11	10	....	36	42	97
Dakota	7	7	....	38	40	92
East	37	38	....	168	153	396
Gulf	10	13	....	68	40	131
Lakes	7	9	....	38	26	80
Missouri	14	17	2	104	73	210
Texas	10	10	....	58	36	114
Independent	53	58	11	268	292	682
Total, United States	167	186	13	860	764	1,990

Departments.	Sergeants, first class.	Sergeants.	Corporals.	Privates, first class.	Privates.	Total.
Alaska	6	3	....	20	8	37
Porto Rico	1	4	....	14	6	25
Hawaii	1	2	....	5	4	12
Philippines	90	74	6	561	242	973
Ordered to Philippine Islands	1	....	....	....	....	1
China	1	....	....	3	2	6
Transports	7	....	....	27	2	36
Total	274	269	19	1,490	1,028	3,080

The board of medical officers convened by Special Orders No. 104, War Department, May 4, 1903, to revise the Hospital Corps Drill Regulations; to submit schemes of instruction for detachments and companies of instruction, hospital corps, and to recommend a suitable knife for field service for members of the hospital corps, made its report in July, 1903. The knife recommended by this board has been approved by the Secretary of War and is now being manufactured by the Ordnance Department. It is believed that it will be a valuable addition to the present field equipment of members of the hospital corps.

The revision of the Drill Regulations and Outline for First Aid for the Hospital Corps is now in the hands of the Chief of Staff, and it is hoped will be published at an early date. The schemes of instruction for detachments of the hospital corps and companies of instruction, hospital corps, submitted by the board have been approved by the Secretary of War, and will be published in the Manual for the Medical Department when the board now revising the manual makes its report. In the meantime these schemes have been put in operation throughout the Army, so that they may have a practical test before their final adoption and publication.

Two companies of instruction for members of the hospital corps have continued in operation during the year—one at Washington Barracks and one at Fort McDowell.

Company of Instruction No. 1, Hospital Corps, at Washington Barracks, was used in connection with the general hospital to instruct the student officers of the Army Medical School in the various practical exercises of the company and in the administrative duties devolving upon them as members of the Medical Corps of the Army.

Capt. F. P. Reynolds, assistant surgeon, U. S. Army, commanding the company, reports as follows on the operations of the command during the year:

> During the fiscal year 261 men were received in the company, of whom 225 were recruits and 36 were men with previous service in the hospital corps.
>
> Transfers to other stations were as follows: Thirteen noncommissioned officers, 34 privates, first class; 204 privates, of whom 91 were transferred for foreign service. Twenty men were discharged for various causes; 5 members of the company were appointed sergeants, first class; 13 were appointed sergeants, and 6 were appointed corporals.
>
> The character of the recruits received was below that which should be expected considering the advantages offered in the hospital corps. On joining many were found to have serious physical defects disqualifying them for service. Twelve were discharged for disability, of whom 11 were physically unfit at the time of enlistment. Seven men were discharged without honor because of bad character.
>
> It is believed that if recruiting for the hospital corps were done by medical officers only, this large proportion of undesirable and defective men would not be enlisted, and that men of higher intelligence would be obtained.

The work of the year has been in accordance with the scheme for instruction of companies recently compiled by a board of medical officers and approved by the Surgeon-General and Chief of Staff.

The recently revised Hospital Corps Drill Regulations have been used by the company since August, 1903, the instruction in the drill being given in accordance with these regulations. Some minor defects were thus discovered and corrected and the practicability of the different movements proven.

Field service of the company.—The company again attended the encampment of the Pennsylvania National Guard, this year that of the Third Brigade at Mount Gretna, Pa. Leaving Washington July 1, the march of about 134 miles was made in about eight days. Returning, the route was through the Cumberland Valley to Hagerstown, the Antietam battlefield, Harpers Ferry, and Leesburg, Va., a total distance of 195 miles made in nine marching days. On five of these days marches of over 20 miles were made, on one day 29 miles were made, and on another 40 miles.

Besides the usual company field equipage and personal equipment of the men, a regimental hospital was carried. The transportation consisted of four wagons. One noncommissioned officer and two privates were mounted. A beautiful site was assigned for the camp at Mount Gretna, on which the regimental hospital was pitched, where it remained for exhibition and for purposes of instruction throughout the encampment. Drills covering setting-up exercises, the school of the soldier, the school of the detachment, litter drill, first aid, and field work were given in the presence of the medical officers and hospital corps of the brigade. An exhibition was also given before the Governor of the State and his staff.

At several of the drills of the hospital corps of the National Guard, noncommissioned officers of the company were present as instructors and assistants. The courtesy and hospitality shown to visiting officers and men make service with the Pennsylvania National Guard an experience long to be remembered. The advantages of combined encampments to both services are well understood, and for the regulars they are as important as for the militia. On the return march the company spent two days in camp with the National Guard of the District of Columbia at Leesburg, Va., where the regimental hospital also was shown. Here also many courtesies were extended to the company by the commanding-general, the surgeon-general, and officers of the District Guard.

On September 22, 1903, the company left Washington for West Point, Ky., taking with it the equipment of field hospital No. 1. The company established and manned this hospital during the maneuvers at this place and also furnished most of the noncommissioned officers and some of the men for the ambulance company and base hospital.

From Camp Young the company, on October 11, 1903, went to Fort Riley, Kans., arriving there October 12, at which place it performed duties similar to those at West Point, Ky., with the maneuver division, Camp Wm. Cary Sanger.

In the experience gained by the Medical Department from this field service, Company of Instruction No. 1 has largely shared. Nearly 100 privates have profited by it, most of whom have been transferred elsewhere.

The company has 16 noncommissioned officers who have become familar with the duties liable to be required of them on active service. The equipment of a field hospital and ambulance company form part of the company property, and the company is prepared to take the field with a trained personnel of noncommissioned officers and privates first class.

The commanding officer, Capt. John S. Kulp, assistant surgeon, U. S. Army, of Company of Instruction No. 2, Hospital Corps, at Fort McDowell, Cal., reports as follows on the operations of the company during the year:

The second company of the hospital corps was organized by authority of the Secretary of War on September 21, 1902. Since that date 1,052 men have received instruction. The present schedule extends over a term of four months. It is subdivided into four periods, each of one month. Each day has seven periods of instruction, and there are examinations at the end of each month.

The personnel comprises 1 captain, 1 lieutenant, first sergeant, quartermaster-sergeant, 7 sergeants, 3 corporals. and 7 privates permanently detailed to carry on the work. In addition the average number under instruction for the last twelve months was 86.

For purposes of instruction the men are divided into five classes, each of which is in charge of a noncommissioned officer, who is responsible for the discipline, conduct, and efficiency of his class.

A course of typewriting for those of the graduating class able to profit by it has proved a success, and a special department of drill and discipline has also been organized during the year. The courses of instruction are as follows:

1. Setting-up drill.
2. Care and management of cattle and horses.
3. Infantry, tent, litter, and ambulance drill.
4. Elementary anatomy and physiology.
5. Dictation.
6. First aid, practical and theoretical.
7. Bandaging.
8. Army Regulations.
9. Articles of War.
10. Materia medica.
11. Nursing.
12. Pharmacy.
13. Clerical work.
14. Ward classes in medical and surgical nursing.
15. Diet cooking.
16. Minor surgery.
17. Ward management.
18. Hygiene.
19. Soldierly efficiency.
20. Typewriting.

There is now a constant demand for the graduates of the company, requests being received from medical officers almost daily, and a San Francisco nursing bureau has a number in civil practice. Of the 1,052 men under instruction, 54 received the certificate of graduation, or 5.1 per cent. This year a larger proportion of the men were received directly from the recruiting stations, and it is believed that better results are obtained with them than with those who have already served a few months in the hospital corps. In accordance with paragraph 49 of the manual there are usually a number of casuals present with the company. These men not only benefit by the more rigid discipline and the instruction which they receive, but they do necessary police and fatigue work, leaving the time of the men in classes free for study and recitation. Last winter when casuals were no longer assigned, the instruction suffered in consequence.

The company sadly needs a permanent home. Experience has proved that unless barracks are assigned by the War Department, there can be no fixidity of occupation. Fort McDowell, because of local conditions beyond the control of the Medical Department, seems no longer a suitable station, and transfer to the Presidio is recommended.

Two officers can not do the work of the company, and also furnish medical attendance for a headquarters and five organizations. The result is as unfair to the post as it is to the Medical Department and the officers themselves.

Side arms are recommended for noncommissioned officers, not as weapons but as symbols of their position and authority. A suitable allowance of quarters for the sergeants first class would seem a matter of simple justice, but has not yet been obtained.

Companies of instruction are no longer on an experimental footing. They fulfill a definite and a necessary purpose. During the last year the Second Company weathered a period during which it was all but without the conditions necessary for existence. It has now an intelligent and conscientious personnel of noncommissioned officers, to whom great credit is due. It never has had a sufficient commissioned personnel, nor a permanent home. These are its most pressing needs, now that both the curriculum and the noncommissioned instructors have reached a satisfactory state. The work of the Second Company is believed to have had an effect on the whole hospital corps, and this effect is still in the direction of a higher standard of excellence.

EXHIBIT OF THE MEDICAL DEPARTMENT OF THE ARMY AT THE LOUISIANA PURCHASE CENTENNIAL EXPOSITION, ST. LOUIS, MO.

The exhibit which is in charge of Maj. Richard W. Johnson, surgeon, U. S. Army, consists of a field hospital having a capacity of 108 beds and is located just northeast of the Palace of Liberal Arts. The attractive display is composed of the improved hospital equipment and supplies as now furnished the Medical Department under existing regulations.

The hospital wards comprising 18 tents of the Munson pattern are arranged in the form of a square in front of which are the office, dispensary, and operating tents. In the rear of the wards are situated the mess, kitchen, and store tents, while on the right are quarters for the commanding officer and on the left quarters for the noncommissioned officers and privates of the hospital corps.

The plot of ground assigned for the use of the Medical Department has been sodded, except where cinder walks have been constructed for necessary communication, thus adding to the appearance and attractiveness of the exhibit, which has received general commendation from visitors.

The detachment of hospital corps men on duty at the Exposition gives daily an exhibition drill in first aid to the wounded, litter drill, demonstrations of the various means of transporting wounded, tent pitching, and hospital establishment. These drills are very popular, and are attended by a large proportion of those who attend the Fair.

ARMY NURSE CORPS.

During the last fiscal year 312 graduate nurses have applied for admission to the corps. There have been 37 appointments (27 new, 10 having had previous service) and 36 discharges.. On June 30, 1904, the corps was filled to its maximum strength, having 100 nurses on active duty, distributed as follows:

United States Army general hospital, Presidio of San Francisco, Cal	39
United States Army general hospital, Fort Bayard, N. Mex	15
First Reserve hospital, Manila, P. I	34
Convalescent hospital, Corregidor Island, P. I	4
Base hospital, Iloilo, P. I	5
On detached duty at Zamboanga, P. I	2
Home awaiting discharge	1
	100

The increasing demand for nurses at the hospitals made it necessary to assign the work as dietist at the Hospital Corps Company of Instruction, Fort McDowell, Cal., to a nurse at large. It was formerly done by a member of the corps. There are at present five hospitals where trained nurses are on duty, two in the United States and three in the Philippine Islands.

The health of the corps has been uniformly good. There has been no case of serious illness and no death during the year.

For many reasons it seems that a more generous provision should be made for the subsistence of the nurses. The ration alone is wholly inadequate. Owing to the comparatively small number serving at any one place, the savings therefrom are too insignificant to create a fund which might otherwise be applied to the improvement of their mess. This is notably true in the Philippines, where the cost of living is high and the need of a generous diet is particularly important.

It also seems desirable that some inducement to remain in the corps should be offered the older and most highly efficient nurses. An increase in pay of 5 per cent for every three years of service would be in line with the procedure in other branches of the military establishment and attain the desired end at a trifling cost to the Government.

The nurses have shown themselves an efficient and dignified body of women. A medical officer commanding one of the large general hospitals writes: "I have nothing but praise for the nurses of the Army Nurse Corps who have come under my observation. They have done faithful and most valuable work, and their services have been of inestimable value to the Medical Department."

MEDICAL DEPARTMENT OF THE MILITIA.

Medical officers of the Army were on duty with the militia in the annual encampments in Pennsylvania, Ohio, and Texas.

Maj. Guy L. Edie, surgeon, U. S. Army, reported that the organization of the medical department and hospital corps of the State of Ohio follows closely that of the regular establishment; the equipment to be identical. There was, however, at that time great deficiency of necessary equipment. Each regiment had its own hospital, there being no brigade or division hospital. There were ambulances, but no ambulance company was organized. The State owns no hospital tents. The personnel of the medical department is excellent, and the earnestness and intelligence they showed was particularly gratifying. The hospital corps was well instructed. The general fitness as to age and physical qualification of the troops compare unfavorably with the Regular Army. The orders for the sanitary inspections of the camp were excellent. He made the following recommendations:

> That no person be appointed as assistant surgeon unless he has been examined and approved by a board consisting of not less than three medical officers convened by the governor, and that the surgeons be appointed from the assistant surgeons after examination and approval by a similar board convened by the same authority. I believe also that the State should have a medical officer with suitable rank to perform the duties of medical purveyor or supply officer.
>
> That a uniform programme be prescribed for the instruction of medical officers and hospital-corps detachments at their home stations and in camps.
>
> That the methods and usages of the medical department, Ohio National Guard, follow or approximate as closely as possible those of the Regular Army, especially as to records and blank forms. It was noted that the morning report of sick and wounded, although modeled after that in use in the Regular Army, differed materially. The sentiments of the medical officers of the guard seem to be favorable as to compliance with sections 4, 5 and 7 of the militia act, 1903. Every facility for the freest inspection was given and criticism was invited. All kindly courtesies were extended to the representatives of the War Department.
>
> It was a revelation and a pleasure to me to observe the spirit and zeal shown by the guard in its work through the whole time of the encampment. It would be difficult to have more earnest work done in any encampment.

Major Mason reported that the medical department of the Texas National Guard was based on the divisional organization of the line; there was one lieutenant-colonel, division surgeon, two majors, brigade surgeons, and about seventeen other medical officers of various ranks attached to regiments. Of these, only the division surgeon and six regimental surgeons were present in camp up to the evening of the second day. The surgeon-general (who was also present in camp) had no roster of his corps until the day before the encampment, and there was no system of reporting the arrival of medical officers in camp. It appeared that medical officers could accompany the troops or stay at home, as suited their convenience.

There was no equipment of any sort. On request, the chief quartermaster bought what medicines and dressings were deemed necessary and returned to the drug stores the unexpended balance when the camp was over.

There was no organization or equipment of the hospital corps. A few hospital stewards were attached to some of the regiments, but the chief medical officer had no roster of them and did not know how many or who they were.

He recommended the transfer of 150 men to the hospital corps and the following organization of the medical department:

	Colonels.	Lieutenant-colonels.	Majors.	Captains.	Lieutenants.	Sergeants, first class.	Sergeants.	Privates, first class.	Privates.
4 regiments infantry			4	4	4	4	8	24	12
1 squadron cavalry				1			1		2
1 battalion artillery					4		4	4	4
1 field hospital			1	1	1	2	1	20	5
1 ambulance company			1	1	1	2	3	28	15
Administration:									
Surgeon-general's office	1			1		1		1	
Division surgeon's office		1				1		1	
Brigade surgeon's office			2				2		2
Medical supply depot				1			1	2	
Total	1	1	8	9	10	10	20	80	40

The transfer of the men was ordered and the organization adopted, but up to the time of his departure nothing had been actually accomplished and the organization was only on paper. He later learned that some fifty men were transferred and reported for duty with the corps.

Requisition was made under his direction for equipment and supplies for the regimental and brigade field hospitals and for the ambulance company. The plan was to procure the equipment before the next encampment and have it stored in Austin, under charge of the medical supply officer. He also recommended that after the close of the present encampment a field hospital and an ambulance company be organized in each of the two largest cities, to be officered by the medical officers there resident, and to be given regular drill and inspection throughout the year, this in addition to the regimental and smaller detachments. It was believed that an organization of this sort would hold together and encourage esprit de corps.

HOSPITAL CONSTRUCTION AND REPAIR.

During the fiscal year modern hospitals were built at Fort Greble, R. I.; Fort Rosecrans, Cal.; Fort Des Moines, Iowa; Fort Lincoln, N. Dak.; Fort Baker, Cal.; Fort Worden, Wash., and Fort Casey, Wash.

A modern operating room has been completed in connection with the United States Army general hospital, Presidio of San Francisco, Cal., the hospitals in the Philippine Islands have been added to and repaired, and portable buildings have been purchased for use as officers' quarters at the United States Army general hospital, Fort Bayard, N. Mex., and minor repairs and improvements have been made to the hospitals at military posts.

Plans and specifications have been prepared for new hospitals at Fort Mott, N. J.; Whipple Barracks, Ariz.; Fort Bliss, Tex.; Fort Fremont, S. C.; Fort McDowell, Cal.; Fort Totten, N. Y., and a hospital for recruits and casuals at Angel Island, Cal., also for additions to the hospitals at Chickamauga Park, Ga.; Fort Ethan Allen, Vt.; Fort Meade, S. Dak.; Fort Robinson, Nebr.; Fort Wadsworth, N. Y.; Fort Slocum, N. Y.; Fort Myer, Va.; Fort Monroe, Va.; Fort Washington, Md.; Fort McKinley, Me., and for a dead house for the hospital at Fort Snelling, Minn.; also for a guardhouse for the United States

Army general hospital, Presidio of San Francisco, Cal. Some of these structures are now in course of erection and proposals are being invited for others.

Owing to the limitation fixed by section 1136 of the Revised Statutes, it was found impossible to erect modern hospitals at Whipple Barracks, Ariz., or Fort Mackenzie, Wyo. This statute was enacted March 3, 1859, when conditions were vastly different. To meet present demands it is not practicable to erect a modern and sanitary hospital for twelve patients, thoroughly equipped, for $20,000. At the most accessible posts proposals have to be invited several times, and essential portions of the building have to be omitted before contracts can be entered into. This method causes delay, and not only involves the cost of changing the plans and specifications and readvertising, but requires an additional outlay for installing the omitted portions at a greater expense, which procedure is neither economical nor advantageous to the Government. It is recommended that section 1136 of the Revised Statutes be amended to read "fifty thousand dollars" instead of "twenty thousand dollars," in order to overcome the increased cost of material and labor since the enactment of the law in 1859.

It may be possible to erect a small hospital for 12 beds in one locality for $25,000, while in another section of the country the same building would cost over $30,000, the advance being due to the isolated situation, entailing an extra cost for transportation and lack of competition. These small hospitals, in addition to a ward of 12 patients, furnish quarters for 8 attendants, and are provided with an office, dispensary, mess room, kitchen, laboratory, operating room, instrument room, isolation ward, officers' ward, ward master's room, room for patients' effects, linen room, a dark room for the examination of the eyes, etc., lavatories, storerooms, boiler room and fuel room, all of which are necessary. The cost of erecting larger hospitals is less in proportion to size.

Preliminary sketches have been made for a new hospital at Fort Riley, Kans., and for enlarging the hospitals at Fort Leavenworth, Kans., Fort Sheridan, Ill., and Fort Snelling, Minn., for which purposes special appropriations were made by Congress at the last session. The money allowed for these purposes is entirely inadequate and will only partially meet the requirements, and unless additional appropriations are made it will take at least five or six years to place these buildings in a proper condition to meet the needs of these large posts, and the expense will be at least 20 per cent greater than if the structures were completed under one contract instead of being confined within the limit of the statutes.

New quarters for sergeants, first class, hospital corps, have been completed at Plattsburg Barracks, N. Y., Fort Wadsworth, N. Y., and Fort Williams, Me., and quarters are now in course of erection at Fort Stevens, Oreg. The quarters at Fort Howard, Md., Fort Morgan, Ala., and Fort Greble, R. I., have been enlarged, and minor repairs made to similar quarters at posts. Owing to the increased cost of material and labor it is not possible to meet all requirements from the appropriations authorized, and larger amounts will be necessary to meet the growing demands.

MEDICAL AND HOSPITAL SUPPLIES.

During the fiscal year covered by this report the various articles of field equipment contracted for during the preceding year, with one exception, have been all delivered. The time required to procure the field chests well illustrates the necessity of having field equipment on hand instead of postponing its purchase until war is imminent. The circulars of advertisement were dated February 2, 1903, and the bids were opened March 5. The following tabular statement shows the length of time required to obtain some of the more important articles:

Article.	No.	Date of contract.	Date of delivery.	Time.		
				Yr.	*mos.*	*dys.*
Detached service chests	450	June 12, 1903	Apr. 28, 1904		10	16
Medical chests	150	do	Apr 29, 1904		10	17
Sterilizer chests	120	do	do		10	17
Surgical chests	150	do	July 1, 1904	1	0	19
Emergency cases	1,125	do	May 14, 1904		11	2
Field operating cases, small	975	do	June 3, 1904		11	21
Orderly pouches	1,250	do	May 28, 1904		11	16
Hospital Corps pouches	9,000	May 29, 1903	Not completed.	..	..	..

The issue of field equipment to the organized militia under the act approved January 21, 1903, has been very considerable, as shown by the following table, and has to that extent reduced the stock of field equipment on hand. This will be replaced as far as practicable by new purchases. In order, however, to use advantageously the money refunded for this equipment under the act approved March 2, 1903, it should be made available until it is expended instead of ceasing to be available at the end of the fiscal year.

State.	Amount.	State.	Amount.
Alabama	$398.55	Nebraska	$664.88
California	1,177.03	New Jersey	276.82
Colorado	3,398.84	New Mexico	292.10
Connecticut	1,046.49	New York	978.14
Delaware	1,133.70	North Carolina	3,396.72
Florida	835.94	North Dakota	236.92
Hawaii	1,134.66	Ohio	6,554.58
Idaho	83.55	Oklahoma	1,141.95
Iowa	1,583.49	Texas	2,416.34
Kansas	2,354.06	Utah	738.49
Kentucky	1,207.73	Virginia	1,705.68
Maryland	3,951.37	Washington	1,316.54
Massachusetts	341.15	Wisconsin	3,987.91
Michigan	4,959.92		
Minnesota	1,561.24	Total	53,820.74
Missouri	4,945.95		

Three new field hospitals have been assembled during the year. The distribution of field hospitals is at present as follows:

Field hospital No. 1, with Hospital Corps Company of Instruction No. 1, at Washington Barracks, D. C.

Field hospital No. 3, at Fort Riley, Kans., where it is stored for use in maneuvers.

Field hospitals Nos. 2 and 4, in field medical supply depot, Washington, D. C.

Field hospital, No. 5, in medical supply depot, San Francisco, Cal.

The question of storage of field equipment has become a serious one. The three supply depots for current issues have not room to spare for the accumulation and storage of reserve equipment for war, and to use for this purpose buildings for which city rentals must be paid is a manifest extravagance. The field depot in the basement of the Army Medical Museum building is of small capacity and may at any time be demanded for other uses. Several medical storehouses of fireproof construction on Government reservations at convenient locations should be provided for field equipment. A suitable building at the St. Louis powder depot recently turned over to the Quartermaster's Department, has been promised to the Medical Department for this use by the Quartermaster-General.

Nineteen regimental field hospitals, complete in every respect, have been issued to posts in the United States under paragraph 59, Manual for the Medical Department. A list of the posts so equipped is given in General Orders 75, War Department, December 31, 1903.

In the assembling of the reserve medicines for field hospitals listed in paragraph 289, Medical Manual, the Munson packing units have been used. The three months' supply for each hospital is arranged in three identical sets of boxes, each of which contains one-third or one month's supply of each drug. These sets are marked A, B, and C, and the boxes in each set are numbered consecutively from 1 to 16, of which there are seven containing drugs, two antiseptics, and seven hospital stores, including alcohol. Some slight changes in the amounts were necessary to make them divisible by 3. It has been found in practice that the packing unit has to be increased slightly from its theoretical dimensions. Its exact dimensions in the liter cartons are 8½ by 6¼ by 6¼ inches, and the inside measurements of the 10 unit packing boxes used at the field supply depot, are 31½ by 12¾ by 8½ inches. These are of three-fourths inch stuff, iron bound and without end cleats, and 32 of them placed on end are exactly contained in the bed of a 4-mule army wagon.

The following are the medical supply depots:

Location.	Officer in charge.	Number of posts and stations supplied.
New York City, N. Y., 391 Washington street.	Lieut. Col. H. S. Turrill, deputy surgeon-general, U. S. Army.	69
St. Louis, Mo., 204 South Eighth street[a]	Lieut. Col. L. W. Crampton, deputy surgeon-general, U. S. Army.	39
San Francisco, Cal., 655 Mission street	Maj. Louis Brechemin, surgeon, U. S. Army.	34
Manila, P. I., Calle Concepcion	Maj. W. O. Owen, surgeon, U. S. Army	120
Field depot, Army Medical Museum and Library building, 7th and B streets, SW., Washington, D. C.	Capt. C. R. Darnall, assistant surgeon, U. S. Army.	(b)

[a] This depot also has on hand and issues field equipment.
[b] Field equipment for Army and organized militia.

The New York depot continues, as heretofore, to be the main purchasing depot, but care has been taken not to purchase in New York supplies for issue at western posts where New York prices plus the transportation charges equal or exceed the bids received at St. Louis.

The stores in the San Francisco depot which were returned from the Philippines have been largely drawn upon during the year for current issues.

Coil X-ray machines of the most improved pattern have been furnished to the United States Army general hospital, Fort Bayard,

N. Mex.; Cadet Hospital, West Point, N. Y.; United States Army general hospital, Presidio of San Francisco, Cal., and Fort Myer, Va.

Ice machines at 14 posts in the United States were turned over to the Quartermaster's Department at the end of the fiscal year, in accordance with recommendations from this office.

MANEUVERS.

The maneuvers of the year have given an excellent opportunity for the instruction of the Medical and Hospital Corps personnel in their duties in the field and for trial of the new medical field equipment.

The first maneuvers in point of time were those between the Army and Navy held in Portland, Me., for these troops began to assemble in May, though the actual maneuvers did not take place until the last of August.

Careful preparations for the sanitation of the maneuver camps and for the care of their sick were made on recommendations of Col. Henry Lippincott, assistant surgeon-general, U. S. Army, chief surgeon Department of the East, whose preliminary arrangements, described in the following report, are considered a model for future field exercises of the same character:

On March 30, 1903, seven companies of coast artillery were ordered from the vicinity of Boston, New York, and Baltimore, to the artillery district of Portland for duty in the maneuvers to be held in that district, the order requiring them to be at their destination on May 15. These troops were augmented by additional organizations ordered to arrive as follows: Nine companies coast artillery, June 1; one company of engineers, July 15; two batteries of field artillery, August 10. The following National Guard troops were also ordered to participate during the period of the actual maneuvers, August 22 to 29: Two regiments of infantry National Guard State of Maine, one regiment of heavy artillery Massachusetts Volunteer Militia, and two signal corps companies State of New York.

Immediately on receipt of official information relative to the maneuvers, recommendation was made by the chief surgeon to the department commander that odorless excavating apparatus, with closet and urinal troughs complete in every detail, be supplied to the posts of Fort McKinley and Fort Levett, where the troops were to go into camp, and that the purchase of material and hire of labor for the erection at these posts of a sufficient number of temporary latrines, according to specifications given in General Orders 170 of 1899, be authorized, sites for same to be selected by the officers on the ground, one of whom should be a medical officer. On April 25 three odorless excavators and 68 closet and urinal troughs were ordered shipped from the depot at St. Asaph, Va., by the Quartermaster-General.

On April 10 the Secretary of War approved a recommendation of the chief surgeon that toilet paper be issued for the use of the enlisted men at Forts McKinley and Levett in the quantities authorized by paragraph 1403, Army Regulations. This recommendation was made with a view to prevent the clogging and obstruction of the pipes connected with the excavating apparatus.

Recommendation was made March 28 that camp equipage supplied by the Quartermaster's Department be furnished as follows: For Fort McKinley, 6 hospital tents, 2 wall tents, and 4 common tents; 2 field ranges, small; 5 tent stoves and the other articles of field equipment enumerated in paragraph 325 of the Manual, except ambulances and harness, mounts for the hospital corps, camp colors, etc. The same equipage was recommended for Fort Levett less 1 hospital tent, 1 common tent, and tent stove. The number of tent pins recommended and supplied was largely in excess of the allowance given in the Manual. The flooring of these tents was recommended, but only the tents used as hospital wards for patients were floored. All these articles, except mauls which were disapproved by the department commander, were furnished. For the hospital corps detachments at each of the maneuver camps one conical wall tent was asked for and supplied.

On April 1 recommendation was made by the chief surgeon that Maj. Charles B. Ewing, surgeon, U. S. Army, be directed to make a preliminary investigation into the sanitary and hygienic conditions at Forts McKinley and Levett, with a view to recommending to the district commander the selection of sites for the camps and all their appurtenances, including hospital, cook, and mess tents, latrines, and all other matters, especially the water supply, pertaining to the sanitary and hygienic welfare of the troops to be encamped at these posts during the maneuvers.

Major Ewing in his report of inspection recommended that temporary frame quarters used for barracks at Fort McKinley and a frame cottage at Fort Levett, owned by the Government, be set aside as temporary hospitals for the accommodation of the sick to be maintained in conjunction with the tent hospitals, which he suggested be used for convalescents and hospital corps men. This was authorized by the department commander. Major Ewing reported fully concerning the camp sites, water supply, etc., and stated that sites for the latrines had been so selected that roadways made available the odorless excavators. He recommended frame cook houses instead of cook tents. Board sheds were approved by the department commander for cooking purposes.

The chief surgeon recommended that the sanitary latrines and all cook and mess tents be screened with wire netting, and that the cook and mess tents be framed and floored. The screening of the latrines and mess tents was disapproved by the department commander, who, however, authorized the construction of 18 cook houses and two bakeries of frame, and the screening of windows and doors of same. Lumber for tent floors was not approved by the department commander, who desired that the troops should live as if in camp.

The regimental field hospital outfits at Fort Columbus and Plattsburg Barracks were ordered sent to Forts McKinley and Levett, respectively.

The chief surgeon requested authority, which was granted, to order necessary supplies direct from the New York depot, for posts participating in the maneuvers, without reference to the office of the Surgeon-General.

On April 18 the assignment of an assistant surgeon, with rank of captain, to duty at each of the maneuver camps was recommended with a view of having them arrive there as soon as possible after May 1, in order to arrange for the reception of the possible sick, make requisition for medical supplies, and look after sanitary and hygienic matters in advance of the arrival of troops.

A liberal allowance of lime for use in connection with the sanitary latrines at Forts McKinley and Levett, and also for possible contingencies at Forts Preble and Williams, was recommended to be furnished by the Quartermaster's Department, as well as mineral oil for the destruction of mosquitoes and their larvae. Authority was granted by the department commander to purchase 125 barrels of lime and about 7 or 8 barrels of mineral oil for such purposes.

Recommendation was then made for hospital corps details to report on or about May 1, the allowance of army regulations based on the strength of the troops being followed as nearly as possible. Instructed men only were ordered sent. Litters were ordered taken when two or more men went from the same post.

Requisitions for an outfit of supplies for the camp hospitals, supplementary to the field hospitals, were prepared by the chief surgeon and referred to the medical supply officer at New York for issue.

The surgeons at the maneuver camps were informed of what had been done and a copy of every recommendation made was furnished the Surgeon-General.

Recommendation was made that the surgeons of posts from which troops were ordered to the maneuvers be instructed to furnish company commanders concerned with a certificate to the effect that so far as it was possible to ascertain there were no cases of typhoid or other epidemic infectious diseases among the men of the command. Instructions were given accordingly by the department commander.

The surgeons of the maneuver camps were furnished blank forms for the efficiency report of the hospital-corps detachments, and were informed it was desired that every advantage be taken of the opportunities for instructing them in the duties of the hospital corps in the field.

A small amount of hospital fund for the purchase of ice and articles of diet for the sick at the maneuver camps was furnished by the Surgeon-General.

Additional details of medical officers and hospital-corps men were recommended as the troops in the maneuver district were increased.

During the actual maneuvers medical officers were on duty at the several posts and camps as follows: Fort McKinley, 2; Fort Levett, 1; Fort Preble, 2; Fort Williams, 2; Cape Elizabeth, 1; Fort Gorges, 1; Camp Smith, L. I., 1.

The aggregate number of hospital-corps men in the maneuver district was 12 noncommissioned officers and 53 privates of both grades, divided among the posts as follows: Fort McKinley, strength of command, 918, 3 noncommissioned officers and 15 privates; Fort Levett, strength of command, 346, 2 noncommissioned officers and 8 privates; Fort Preble, strength of command, 606, 2 noncommissioned officers and 11 privates; Fort Williams, strength of command, 455, 2 noncommissioned officers and

11 privates; Camp Smith, L. I., 1 noncommissioned officer and 4 privates; Cape Elizabeth, strength of command, 200, 1 noncommissioned officer and 3 privates; Fort Gorges, strength of command, 158, 1 noncommissioned officer and 1 private.

The experience of the year before at Fishers Island during the maneuvers had been a disastrous one so far as typhoid fever was concerned, 57 cases of that disease having appeared among the troops encamped there, and it is a pleasure to record that Colonel Lippincott's efforts, seconded as they were by the medical officers participating in the exercises, were completely successful in preventing a repetition of that unfortunate occurrence, which proved, if further proof were needed in the light of what should have been learned from the Spanish-American war, that permanent camps will not remain healthy with makeshift sanitary arrangements improvised by the troops occupying them. The hearty cooperation of all line officers with the medical department in every detail of sanitary police was in marked contrast to the passive opposition often encountered formerly, and indicated a praiseworthy progress which promises well for the health of future camps. The Reed sanitary latrine again demonstrated its value. It may now be safely stated that in the absence of sewers it should be the only method considered for permanent camps.

A noteworthy point in the climatology at Portland, observed by Capt. George D. De Shon, assistant surgeon, U. S. Army, was the absence of the anopheles variety of mosquito. As stated by that officer, although the companies of artillery from southern stations brought a number of cases of malaria, these responded readily to treatment. No new infection occurred, and after a few weeks the disease completely disappeared. The air of the sea and the pines is an excellent tonic, and the general health of the command was much improved during this tour of duty. Captain De Shon makes the pertinent suggestion that the coast of Maine would be an admirable situation for a summer camp for convalescents or for troops debilitated by tropical service.

So far as the sanitation of the camps and the care of the sick were concerned the duties of the medical department were very successfully performed. The health of the commands at Forts McKinley and Levett was unusually good. The percentage of constant noneffective at Fort McKinley from May to September, which practically comprised the whole maneuver period, was 1.47, while that of Fort Levett for the same period was 1.98. There was no case of typhoid fever reported during the maneuvers.

The second important question which the Medical Department attempted to solve was the special duties likely to devolve upon it at seacoast fortifications during actual engagements, and the instruction which should be given medical officers and hospital corps in order to fit them to play their part during active service.

At both Forts McKinley and Levett instruction was of an entirely practical character. At Fort McKinley the detachment was divided into permanent litter squads, each under a noncommissioned officer. One squad was kept on duty at the hospital continuously for twenty-four hours, ready to respond to any emergency call during that period. Impromptu summonses were made by the surgeon at various hours during the day and night, and the squad required to proceed, somewhat after the method of Metropolitan firemen, to the designated battery, search for a wounded man, apply a primary dressing, and bring him in. From the most apt pupils an operating-room squad was selected.

These men were required to disinfect the room and prepare it as if for an operation. They learned the names of the few simple instruments and how to sterilize them. They prepared a few simple dressings. They learned how to wash their own hands and care for their own finger nails. When a dummy patient was brought in they undressed him, bathed him, shaved and scrubbed the parts supposed to be wounded, and prepared him for operation. These processes were gone through with in detail often enough so that the whole could be done with but little confusion. The interest taken by the men in this practical work as soon as they understood it, the rivalry of the different squads, and the zeal of the junior medical officers, were very gratifying.

At Fort Levett as soon as the camp was established all hospital-corps men were taught in the operating room. When they had become fairly proficient there each man was assigned to a place at the batteries or hospital and frequent practice in the performance of their duties was given, advantage being taken of all calls to arms.

On June 28, 1903, a board of officers consisting of the two surgeons on duty at the camp was convened by the camp commander to formulate an experimental scheme for the care of wounded during an artillery action. This board carefully considered the general problem of seacoast fortifications and the special conditions to be met at Fort Levett, working out the details with the available personnel and also with the personnel required under service conditions, which was found to be much larger than the regulation allowance based on the number of companies, as at a seacoast fort the character of the armament and the location of the batteries must determine this. A scheme of instruction for the hospital corps and the coast artillery was also devised and adopted, and both were thoroughly drilled in their duties.

Before the maneuvers 1 surgeon was ordered away from Fort Levett. The battalion of Maine National Guard brought 1 surgeon and 2 hospital corps privates, 4 men afterwards being detailed from the troops for duty with the medical department; the Massachusetts regiment, 1 surgeon and 1 hospital steward. Thus but three officers and 17 men were available for duty during the actual maneuver period, instead of 6 officers and 37 men, the numbers required as determined by the board.

On account of the great shortage of personnel it was not possible to carry out the recommendations of the board and the men were stationed at the hospital and at points of greatest danger in case of accidents.

During the fire of heavy guns two lessons were learned: First, that it will be impossible during an actual engagement to render any medical or surgical assistance on the parapet where all consideration must be sacrificed to efficient service to the guns. Wounded men will be in the way of the cannoneers and must be removed without delay. Litters can not be used because they will collide with the swiftly moving projectile trucks and ammunition hoists. A casemate room should be set aside for first-aid work. It should be connected by telephone with all parts of the battery. A detail of the hospital corps should be stationed in this room ready to run at call to any part of the battery and remove the wounded without ceremony, without delay and most of all without interfering with the movements of the cannoneers.

Second, casemates can only be used for application of primary dressing and for the most imperative operations. The discharge of the guns above causes so much vibration and so much dust from the cemented ceiling as to interfere with the successful performance of any delicate surgery.

While, as may be seen, the Medical Department profited to a considerable extent from these maneuvers, it is nevertheless true that they have not yet been utilized to nearly their capacity in that direction. In order that more may be accomplished in future it is primarily necessary that the Medical Department be organized for them under service conditions and that the modified peace organization which has obtained in the past be abandoned.

With this end in view a chief surgeon should be detailed with the same powers as a division surgeon. This officer should be ordered to the maneuver ground sufficiently early so that he may give his opinion on all the sanitary questions in connection with the camps and may formulate a scheme for the participation of the medical and hospital corps personnel to the best advantage.

By doing this it is thought that not only will the health of the troops be better safe-guarded, but a working scheme for each harbor may be elaborated so that in the event of war it will only be necessary to furnish personnel and supplies to put the medical service in operation without confusion or delay.

Army maneuvers were held during the year both at West Point, Ky., and Fort Riley, Kans.

Maj. Henry P. Birmingham, surgeon, U. S. Army, who was detailed as chief surgeon of the former, was not able to arrive on the ground until one week before the encampment, which, he reports, seriously handicapped the work of the Medical Department, as the arrangements made prior to that time were inadequate. He makes the pertinent recommendation that the officer selected for such work should be designated by the Surgeon General and, if possible, be given ample time to make all necessary arrangements and consult with the other staff officers, under direction of the military commander, so that timely action may be taken.

Major Birmingham, in his report, dated Washington Barracks, D. C., December 21, 1903, says in part:

> The camp was opened on September 26, 1903, by the arrival of the regular troops, and the strength of the division and the percentage of sick during the encampment were as follows:

Average strength of regular troops	2,631.14
Percentage sick	2.10
Average strength of militia troops	7,567.87
Percentage sick	1.08
Total percentage sick	1.59

> The apparent discrepancy in the percentage of sick between the regular and militia troops was due to two causes: First and most important, the failure on the part of the militia organizations to make proper record and render reports of their sick. Second, the greater length of stay in camp of the regular troops. The total percentage of sick, making due allowance for cases not reported, could not have exceeded 2.5 (and these for the most part were of a trivial nature), which is a most satisfactory showing.
>
> Communications have been sent to the chief surgeons of the organized militia and to the surgeons of the regular troops participating in the encampment with a view of ascertaining if there has been any development of typhoid fever among the men of the command to which they belonged. Reports have been received from the home stations of all the regular troops participating in the encampment, and no typhoid

fever has appeared among the men. The reports, as far as received from the organized militia, show no typhoid fever in their commands, and as the same conditions obtained in both in a general way—at least as far as their water supply was concerned—it is safe to presume that like results in the matter of typhoid fever would also obtain. This, on the whole, is very gratifying, for, as we know, the one dread menace to troops assembled in home camps is typhoid fever.

The Medical Department personnel on duty with the brigades consisted of the following officers and enlisted men:

First Brigade.—Headquarters, band and 9 companies First U. S. Infantry; headquarters, band and 11 companies Third U. S. Infantry; battalion headquarters and 4 companies Twentieth U. S. Infantry; headquarters, band and 12 companies First Infantry, Wisconsin Organized Militia.

	Regular Army.	Militia.
Medical officers	4	3
Contract surgeon	1	....
Enlisted men	20	15

Second Brigade.—First, Second, and Third Infantry, Indiana Organized Militia.

	Regular Army.	Militia.
Medical officers		7
Enlisted men		24

Third Brigade.—First, Second, and Third Infantry, Michigan Organized Militia; First Independent Battalion Infantry, Michigan Organized Militia.

	Militia.
Medical officers	10
Enlisted men	36

Fourth Brigade.—Second Infantry, Kentucky Organized Militia; Third Infantry, Kentucky Organized Militia; headquarters and 3 batteries Artillery Battalion, Kentucky Organized Militia; Eighth Infantry, Ohio Organized Militia.

	Regular Army.	Militia.
Medical officers	1	10
Enlisted men	2	35

Cavalry Brigade.—Two troops Second U. S. Cavalry; 2 troops Fourth U. S. Cavalry; band and 8 troops Seventh U. S. Cavalry; band and 4 troops Eighth U. S. Cavalry.

	Regular Army.
Medical officers	3
Contract surgeon	1
Enlisted men	11

Divisional Artillery.—Fourteenth Battery, U. S. Field Artillery; Twenty-first Battery, U. S. Field Artillery; First Battery, Indiana Organized Militia.

	Regular Army.
Medical officer	1

Field Hospital No 1.

	Regular Army.	Militia.
Medical officers	3	....
Enlisted men	15	11

This organization, under the command of Capt. F. P. Reynolds, assistant surgeon, U. S. Army, arrived in camp from Washington Barracks, D. C., September 23, 1903, at 4 p. m., and the next morning was ready for the reception of patients. The field hospital was an object lesson to all in camp interested in the medical side of the maneuvers, and received high commendation from the foreign attaches, Colonels Raspopoff and Foster, who made a close inspection of the workings of the entire medical department.

The field hospital, minus its reserve supplies, was packed up and moved to Stithton (8 miles from camp), the base of the Brown Army in the maneuver of October 8, 1903, and used as a field hospital for the reception of wounded in this maneuver. Four ambulance loads of tagged patients, supposed to need hospital treatment, were received, treated, and properly recorded. The work of Captain Reynolds and his assistants, Lieuts. Charles R. Reynolds and Frederick A. Dale, assistant surgeons, U. S. Army, is to be highly commended.

The report of Capt. F. P. Reynolds on field hospital No. 1, hereto appended, is deserving of especial attention. The organization which Captain Reynolds was enabled to bring to the maneuvers was of incalculable benefit to the whole medical department present, for he had not only men for his field hospital, but through the men of the company of instruction, which he brought from Washington Barracks, I was enabled to draft a trained nucleus for the organization of the ambulance company and base hospital. The work of these men, compared with that of the others, was such as to make it important, to my mind, to have similar organizations established throughout the country, so that no man of the hospital corps shall be assigned to duty with troops until he has had such instruction.

Ambulance Company No. 1.

	Regular Army.	Militia.
Medical officer	1	....
Enlisted men	53	30

This company was organized on the grounds from a detachment from field hospital No. 1, detached hospital corps men from various posts, and detached from organized militia, an altogether heterogeneous mass which in no degree compared with the highly-trained body of men which should constitute an ambulance company properly organized for war, capable of giving full care to all casualties from the firing line to the field hospital. This was wholly due to the fact that the percentage of medical officers and hospital corps men allowed by law is wholly inadequate, only one medical officer instead of three being available for this duty, and if the wounded in future wars are to receive humane treatment and men are not to be taken from the firing line to aid in removing the wounded, it will require at least 5 per cent of the command to care for the actual wounded if operating in a heavily wooded or broken country, such as that which confronted us at West Point, Ky. The really excellent results obtained by Capt. P. F. Straub, assistant surgeon, U. S. Army, who organized and commanded ambulance company No. 1 with the raw material at hand, is deserving of the highest praise.

My remarks in regard to the necessity of having several thoroughly organized field hospitals only demand stronger emphasis when speaking of the ambulance company, and I would invite most earnest attention to the report of Capt. P. F. Straub, hereto appended, in this connection. It was only by drawing on the field hospital and the organized militia that I could even make a semblance of an organized ambulance company, and even then it was in no way such an organization as we should have in time of war. It would seem that under existing conditions some provision should be made for the organization of ambulance companies, such organizations being of paramount importance to the men on the fighting line. It may be said, and with truth, that our men of the hospital corps are trained in the essentials of first aid, but the ambulance company is the place where the man should be assigned who is to do duty on or near the firing line, and it will require all the drill and discipline he could possibly receive to render him effective in this hazardous position.

In a discussion of the work of the ambulance company which, of course, includes the removal of the wounded to the nearest field hospital and the rendering of all possible aid on the field, we should consider what can actually be done without subjecting the wounded, not to speak of the relieving force, to too great a hazard. It is generally admitted that under the conditions of modern fire in an open country the safest place for a wounded man is on the ground, relying on his first-aid packet either applied by himself or his comrade. But if the country is broken and thickly wooded the pack mule can often get far nearer him than the ambulance, and all the necessary dressings and surgical appliances can be carried fully as well on the pack mule as on the ambulance, and the pack mule can go almost anywhere. I am therefore strongly of the belief that a pack train should constitute part of the transportation of the medical department in the field.

Base hospital.

	Regular Army.	Militia.
Medical officers	2	....
Enlisted men	17	23

The base hospital was organized by Maj. Thomas U. Raymond, surgeon, U. S. Army, and consisted of a field equipment of about 110 beds. It was most advantageously situated in a grove of trees beyond Howard station and fully met all requirements, not only as an object lesson, but as a real base to which all patients were removed when the field hospital was moved to the front in the maneuver of October 8, 1903. The work of Major Raymond and his assistant, Lieut. H. L. Gilchrist, assistant surgeon, U. S. Army, in the organization and management of this hospital, was commendable.

Hygiene and camp sanitation.—The general hygiene and sanitary condition of the camp is one to which I desire to call particular attention.

The water supply of the camp proper was derived from driven wells and, although quite hard, was free from organic taint. The amount derived from these wells, while adequate for drinking and culinary purposes, was wholly inadequate for the necessary baths for the men. The Third Brigade—Michigan—was encamped along the Ohio River, and the men fully availed themselves of the bathing facilities afforded. The regiments of the other brigades were too far removed to make use of the river for this purpose.

The sanitary condition of the camps of the organized militia, with the exception of the First Wisconsin and the Eighth Ohio, were found on the first three days of the encampment to be very unsatisfactory. The sinks were not of the proper depth, were not limed or burned out, the ground in many places was badly fouled, and there was general tendency to disregard sanitary orders. The Third Brigade—Michigan—and the Kentucky contingent of the Fourth Brigade were noticeably deficient in this respect. Close inspections and forceful admonitions practically remedied these sanitary defects after the third day and thenceforth the entire camp was found to be and was left in good condition.

In this connection I would invite particular attention to the fact that, while these maneuver camps are supposed to be approximate to war conditions, they are in fact more or less permanent camps, and in my opinion, in order to conserve not only the health of the troops assembled, but the health of the surrounding community after they have dispersed, all possible precautions against the spread of disease should be taken, and therefore I believe that my recommendation that the "latrine trough" and the "odorless excavator" be supplied to the whole command, was well taken. While I believe that the burning out of the sinks with straw and petroleum and the free use of quicklime, as practiced at Camp Young, met the indications from a sanitary standpoint, still the fact remains that the possibility of soil contamination would have been wholly obviated by the use of the latrine trough, and the carrying of lime and petroleum is just as inadmissible as the carrying of the latrine trough with moving armies in time of war.

In the matter of equipment I would say that the ambulances furnished from the Jeffersonville depot, although of the most recent pattern, as attested by Lieutenant-Colonel Jones of the depot, were not equipped with boxes underneath the wagon bed for dressings and food supplies, as required by existing orders, and were therefore lacking in a most essential particular, viz, a ready means of giving sustenance to and a convenient place for carrying dressings for wounded soldiers who might be detained in the ambulance overnight or on the march. It would seem to me that inasmuch as the ambulance is an appurtenance of warfare that is used exclusively by the surgeon, no such vehicle should be accepted as fit for service until it has been inspected by a medical officer and found to meet his needs.

In this connection I desire to report that the necessity for the medical department to have transportation that is absolutely its own, not only in the matter of ambulances, but in the matter of all appurtenances of transportation necessary for its work, was again forcibly impressed upon me by these maneuvers. It would seem that the proper care and removal of sick and wounded is too serious a matter to be left to the judgment of a chance quartermaster in time of emergency, and transportation for sick and wounded should be as much under the control of the medical officer as his operating case or his medicine chest, for the one without the other may often lend but inadequate help to the stricken soldier.

In speaking of the organized militia I desire in conclusion to mention the fact that the personnel of most of the regiments was made up largely of mere boys, immature youths who would fall down by the score if subjected to a hard campaign in the Tropics, or almost anywhere else for that matter. This condition warrants serious consideration, and under the new relations existing between the Regular Army and the militia might be largely remedied if attention were invited to its paramount importance. With the probability of tropical service in time of war always confronting the American soldier, volunteer as well as regular, there is no place in either branch for the undeveloped boy.

Report of Capt. F. P. Reynolds, assistant surgeon, U. S. Army, commanding officer, field hospital No. 1.

Company of Instruction No. 1, Hospital Corps, left Washington September 22, 1903, 3 officers, 12 noncommissioned officers, 54 privates, and complete equipment for field hospital No. 1. Practically all the privates were recruits of less than two months' service. The company arrived at West Point, Ky., 4 p. m., September 23, and camped on the site previously selected for the field hospital. The hospital equipment was unloaded in less than one hour and was on the ground about one and one-half hours after the arrival of the train. The next day the hospital was pitched in accordance with the plan recommended by the board of medical officers, which was recently convened to revise the Drill Regulations of the Hospital Corps.

On September 26, 5 noncommissioned officers and 6 privates were ordered to report to Captain Straub, forming the nucleus of ambulance company No. 1. Most of these noncommissioned officers had had experience with Ambulance Company No. 3, at Camp Root, Fort Riley, Kans.

The site selected for the hospital was admirable in all respects, being well drained, centrally located, and adjoining the camp of the ambulance company. Water was obtained from a pump about 100 yards distant. Sinks were dug and cared for in accordance with circular 3, Headquarters Maneuver Division, Camp Young, West Point, Ky., September 26, 1903, and General Orders 2 of the division. The organization of the hospital was similar to that of Field Hospital No. 3, Camp Root, Kans., in 1902. This hospital had the decided advantage, however, in having with it a full complement of officers, noncommissioned officers, and men. The medical officers and noncommissioned officers had had considerable field experience.

The necessary guard duty was efficiently performed by members of the company, as the company equipment included six revolvers. It is my opinion that it is entirely practicable and in every way desirable that the hospital corps should guard its own property, as it is usually impracticable to obtain a guard from the line. This difficulty is particularly liable to occur when the guard is most needed, as in pitching the hospital after an action and on going into camp. If revolvers were added to the field hospital and ambulance company equipment, a satisfactory guard could, I think, be maintained, except under very unusual circumstances. Arms are necessary at many times and prevent the loss of much property. A guard was necessary on the car, which contained the field hospital and company property, at Washington as it remained on a siding over night. On arrival at the station and in unloading, a car can not be left without a guard, and it frequently happens that the unloading may be suspended for a number of hours, or perhaps over night. Again, after an action the field hospital pitches its equipment in a suitable place without regard to the location of troops and is somewhat off the route of march after an action; when a guard is most needed at the field hospital it is, I think, impossible to obtain one.

The merits of the medical, surgical, sterilizer, and detached service chests were abundantly proved. Their completeness and compactness have been highly praised by militia medical officers, and particularly by the military attachés who were at the maneuvers. The acetylene outfit worked satisfactorily throughout the encampment. The field furniture has had ample tests to show its practicability. No defects were noted in the bedding case. Some minor improvements might be made in the contents of the mess chest.

I am more than ever of the opinion that the Munson tent is unsuitable for field hospitals in campaign, and that its use should be limited to base or stationary hospitals and for field hospitals in camps of instruction. It weighs considerably more than the common hospital tent, it is difficult to pitch, and the pitching requires about twice the time. A double line of guy pins is necessary to pitch it. They get out of order easily and are then useless. Their added weight and difficulty in pitching are, however, the important considerations which make them unsuitable for campaign.

The important subject of the transportation of the field hospital was given attention by me, as I was informed that the officers of the General Staff detailed for duty at the maneuvers had been directed to inquire particularly into this matter. As was the case at Fort Riley last year, there was much delay in getting together complete transportation. On September 25, mules were obtained; on the 26th, escort wagons were gotten, but without spare parts, none being on hand; on October 1, harness, currycombs, and whips; but it was not until October 3 that complete harness and lash rope for wagons were supplied. Prior to this date there was lash rope for but four wagons and harness for but six teams. As a consequence the field hospital was not prepared to take part in the maneuvers until October 3. All requisitions on the Quartermaster's Department were filled as soon as the articles could be obtained. The division quartermaster showed much interest in our equipment and made every endeavor to obtain the articles asked for. On October 8 the hospital was packed and loaded on wagons and followed the division in the maneuvers. On that date the hospital proceeded to Stithston, about 7 miles from camp, over a rocky road, in which were several short hills; arrived in Stithston in two hours after leaving the camp; selected a suitable site about 2 miles in rear of the division and pitched its camp; was prepared to receive patients within one-half hour after arrival; all the wards consisting of eighteen hospital tents were pitched in about one hour and a half; patients began arriving about one hour later, and during the afternoon twenty-one were received and assigned to wards. The hospital remained over night, returning to Camp Young at 11 a. m., October 9.

In compliance with previous orders, on October 10 the hospital was packed and loaded on the car, and on October 11 the company proceeded to Fort Riley, Kans., to take part in the maneuvers at that point.

Report of Capt. P. F. Straub, assistant surgeon, U. S. Army, commanding officer, ambulance company No. 1.

The company was organized September 27, 1903, with the following personnel: One officer, 2 sergeants, first class, 2 sergeants, 1 corporal, 15 privates, first class, and 15 privates, hospital corps. On October 2 the strength of the company was increased by 1 sergeant, first class, 9 privates, first class, and 8 privates, hospital corps. On October 5, 1903, a further gain of 30 privates, Hospital Corps, from the organized militia brought the total strength of the company to 6 noncommissioned officers, 24 privates, first class, and 53 privates. However, the 30 men from the organized militia in reality added but little to the actual strength of the company. They were almost without exception poorly developed boys, without experience or training, and were evidently considered unfit for duty with their company. Many of them were detailed to the hospital corps against their own will and possessed no inclination or qualifications for their duties. In the short time at our disposal very little could be done in the way of instruction. None of them was really available as litter bearers, as they were not strong enough to carry burdens.

It would be tedious to enumerate the difficulties in organizing a company from such a heterogeneous mass of material—men from a variety of posts and militia regiments, very few with any but a general idea of what was to be required of them. Maneuvers should be a culmination of the years of practical instructions of an organization, and to attempt to organize a company and put it into the field at the same time would seem to be inviting disaster. Most of the noncommissioned officers assigned to the company were very energetic and did their duty in a most intelligent manner, but I can foresee the awful confusion that will result when, if another war breaks out, companies are to be organized out of raw material. Broken poles and overturned ambulances gave a hint of what can be expected from untrained drivers.

In the attempt to convert this mob into an organization, the introduction of 30 perfectly raw militiamen further complicated the situation. Much to my surprise the company soon had the superficial appearance of an organization and in a few days the duty in the field was performed in a satisfactory manner, showing that the majority of the men were much interested in their work. The usual camp routine was carried out systematically and with military precision. Nevertheless, I am satisfied the company could not have stood the strain of actual service and this numerically strong company could not have rendered one-fourth the service of a trained company of half the strength.

It appears to me that in time of peace ambulance companies should be organized, not with a full number of men, but with enough to make it possible to expand to the regulation requirement without breaking down the organization. An ambulance company can no more be organized in a minute than a troop of cavalry.

I speak freely on this subject, as I have seen the work of the hasty provisional organizations doing ambulance work, especially at dressing stations in actual service, and have also been impressed with the much better and more rapid work of trained men. The personnel referred to was trained at the expense of the sick and wounded.

The means of transportation were as follows:

Ambulances, new pattern	15
Ambulances, old pattern	2
Escort wagons	3
Draft animals	40
Saddle horses	12

The new pattern ambulances were not provided with boxes for dressings and hospital stores. No guidons were furnished. About one-half the water tanks on the ambulances were in a leaky condition, and by exchanging them from one ambulance to another each ambulance was provided with one serviceable water tank.

There were not enough animals to furnish more than two for each ambulance, but that sufficed for the character of the work to be done.

Most of the work was done by sections of the company under a noncommissioned officer, which reported to the chief surgeon, and was usually split up and an ambulance sent with each regiment.

No attempt was made to use the ambulance section as contemplated in regulations, viz, to establish ambulance and dressing stations, as might easily have been done. Had each section been under the command of an officer of the ambulance company the scheme could have been carried out fully and would have been a valuable object lesson to all concerned. On two occasions the entire company was ordered out and an attempt made to carry out the regulation scheme and it was found an interesting and valuable experience; the first time a section was sent out to each brigade, and ambulance and dressing stations were formed and all arrangements made for actual service. It was found that the division would take up position on a certain crest and from a study of the map and ground proper locations for the stations were picked out. The ambulance company was rendezvoused at the ambulance station, and by means of the noncommissioned officers of the company and the several brigade surgeons the probable locations of the regimental aid stations were found, the roads leading thereto investigated and a report made to the commanding officer at the ambulance station. All arrangements were complete before the battle opened and under the circumstances it would have been easy to have cared for a large percentage of casualties.

On October 8 diagnosis tags, 150 in number, were given to the umpires, the distribution to be confined to one brigade. The tags were to represent an average casualty of a brigade, and in accordance with the statistics on the subject only about one-fourth that number would need litter transportation, the balance could walk to the ambulances and dressing stations. It was not possible to ascertain just where the battle would be fought, but it was clear that it would be near to the main pike upon which the largest part of the command was moving. It was deemed safe to establish the dressing station at a certain crossroads, accessible from all parts of the field. All surgeons were informed of the dressing station and further warned that the ambulance station would be at the L. and N. pike at a safe distance in the rear of the main column. An ambulance section of the company was sent out on a parallel road a mile distant to follow the left wing and to establish a supplementary ambulance station at a safe distance in the rear of the line. Owing to the nature of the ground nothing was done until the firing had ceased, and then the medical department became very active; the wounded were collected and dressed at the regimental aid stations and a very large per cent of those tagged were assembled.

The ambulances were loaded with the litter cases and brought to the dressing stations where they were dressed, registered, and then forwarded to the field hospital. Only a part of the number tagged were brought in; over two-thirds of the litter cases were delivered to the field hospital, but many of the "slightly wounded" took off their tags and dressings and rejoined their regiment. On the whole the maneuver on this day was a success, and I am convinced that as soon as everyone understands the object of our efforts there will be no difficulty in carrying out our scheme with great success.

I am convinced that we can derive as much benefit and experience out of such maneuvers as the line. The medical service in the field must be as well organized as the other branches, and by frequent repetition of the maneuver much valuable experience in collecting and dressing and transporting wounded may be obtained. It is further suggested that a preliminary course of "Tactics for Medical Department," such as are given in many foreign services, would be productive of much benefit and would make a field organization much more easily obtainable. The first few days of the maneuvers are usually devoted to outpost duty, etc., and leave little for the medical department. This might be devoted to such study. Many points can thus be brought to the attention of the medical officers that are ordinarily acquired by hard knocks in the field. It is not possible to deduce from the experience at the maneuvers what an ambulance company could accomplish in the field were it of regulation strength; although from my limited experience in actual warfare it would seem to me to be abundantly able to care for the wounded of a brigade, and with the assistance of regimental medical officers could clear the field and dress the wounded in a comparatively short time. The enlisted strength would seem ample, but it would hardly be possible for two medical officers to dress the average casualties of a brigade in a reasonable time without further assistance from regimental surgeons. Field service at the maneuvers can not give any indication as to what supplies are to be carried for the ambulance and dressing stations. Any one who has had actual service at a dressing station could easily determine what would be necessary.

Report of Maj. T. U. Raymond, surgeon, U. S. Army, commanding officer, base hospital.

Paragraph 6, Special Orders No. 7, Headquarters Maneuver Division, Camp Young, West Point, Ky., October 1, 1903, assigned me as commanding officer base hospital, and under verbal instructions from the division surgeon I proceeded on October 3 to pitch and equip a hospital of 108 beds on a site already selected, within easy reach of all organizations comprising the Maneuver Division.

The camp site was an ideal one, an open space within a grove of magnificent beeches, the median line of the hospital occupying a slight ridge from which the ground fell away very gradually toward each flank.

The regulation equipment for a hospital of 108 beds was on hand at Camp Young, and the work of transferring it to the proposed site was already begun under the supervision of Lieut. H. L. Gilchrist, assistant surgeon, U. S. Army, who continued on duty with me from the organization of the hospital until its discontinuance, and proved himself an able and valuable assistant. The personnel of the hospital on October 3 consisted of 1 major, surgeon; 1 lieutenant, assistant surgeon; 1 sergeant first class, and 5 privates first class, hospital corps of the Regular Army, and 4 noncommissioned officers and 7 privates of the Indiana Organized Militia.

With these men, assisted by a detail from the Hospital Corps Company of Instruction No. 1, the tentage for the entire hospital (comprising 45 tents) was pitched, floors being provided for all hospital tents, and the authorized field equipment was unpacked and placed in condition for use, and the hospital began to receive patients on the evening of October 4.

From that date until October 15, 57 patients were received, of which number 17 were militia.

Of the militia, all were returned to duty either during the period of the maneuvers or upon the departure of their respective organizations for their homes. Of the regulars 8 were returned to duty and 32 were transferred to the home stations of their organizations. No death occurred.

Of the 17 cases of militia treated, 2 were venereal, 3 were injuries, 9 were fevers, 2 were digestive troubles, and 1 rheumatism. Of the 40 cases of regulars treated, 18 were venereal, 3 simple adenitis, 4 injuries, 7 digestive troubles, 2 fevers, and 1 each of cellulitis, neuralgia, tonsillitis, furuncles, bronchitis, and nasal hemorrhage.

On October 4 the detachment of the hospital corps on duty at the base hospital was increased by 11 enlisted men of the Regular Army, and on October 5 by 12 enlisted men of the Michigan Organized Militia, making a total strength of 40 men.

From this time until October 10, on which date the militia left the maneuver camp, the routine duties of the hospital corps were performed by them and by the regulars on duty without discrimination, the surgeon having in mind in his assignments only the individual fitness of the men for the particular duty assigned them. Drills were established and carried out so far as time for them could be spared from other necessary duties. The behavior of the militia on duty at the base hospital merits nothing but commendation; there were no breaches of discipline, and the men were ready to learn, willing, and obedient.

As one body of men compared to another the contingent from Indiana was, I should say, considerably superior to the contingent from Michigan, and I believe the secret of the difference to lie in the fact that the Indiana Organized Militia comprises an organized hospital corps, while the Michigan Organized Militia depends upon details from the companies for duty at the hospital during field service.

On October 9, 16 privates, hospital corps of the Regular Army, joined for duty at the hospital to replace the men of the Indiana and Michigan militia, who left for home with their organizations on the following day.

Under verbal orders from the division surgeon the base hospital was discontinued on October 15, all patients having been disposed of as indicated above, and the commissioned and enlisted personnel of the hospital being disposed of according to assignments directed in General Orders No. 32, Headquarters Maneuver Division, Camp Young, West Point, Ky., October 13, 1903.

On the following day the medical property was packed and shipped to the medical supply depot, St. Louis, Mo., and the quartermaster property was returned to the chief quartermaster of the Maneuver Division.

As regards the medical aspect of the maneuvers as observed by me while acting as chief surgeon of the brown and of the blue armies, respectively, I have the honor to state that I believe the maneuvers to be of great practical value to the Medical Department of the Army in the way of instruction, both by observation of and by actual participation in the movements of large bodies of troops under circumstances simulating as nearly as possible the conditions of war.

In the disposition of the medical department in the field it was evident that the chief surgeon of an army needed a copy of all orders for the general movements of troops which were issued by the commanding general to his subordinate commanders, in order that he might intelligently locate and assign the medical personnel.

It further appeared to me that under the conditions of modern warfare we would have to abandon the idea of rendering first aid to the wounded on or near the line of battle so long as the engagement was actually in progress, depending almost wholly during that time on the use of the first-aid packet by the wounded man himself or by a comrade.

It is of course essential that the Medical Department keep in constant touch with the line in order that any necessary changes of position may be recognized and made quickly and that the medical and surgical assistance may be rendered on the field as soon as the conditions of the engagement will permit. This, however, will hardly be until either the line has advanced or the firing has ceased.

Troops for the maneuvers at Fort Riley, Kans., assembled in October, 1903. The following extracts are quoted from the report of Lieut. Col. J. Van R. Hoff, deputy surgeon-general, U. S. Army, who acted as chief surgeon of the provisional division at that camp:

The undersigned was notified September 26, 1903, that he would be detailed as chief surgeon of the command assembled October 15 at Fort Riley, Kans., for maneuvers.

Based upon Circular No. 3, current series, Adjutant-General's Office, the medical organization for the proposed command should consist of a field hospital and ambulance company for each brigade, of which there were five, exclusive of engineers, hospital corps, signal corps, and artillery, which latter constituted the divisional organization. The regulations (Manual for the Medical Department, 1902) are, however, somewhat at variance with this view, as therein it is set forth that three field hospitals and ambulance companies will ordinarily be provided for a division of normal strength (18,000).

It will be recalled that the provisional division had five brigades. In the absence of specific instructions to the contrary, it was assumed that two field hospitals and two ambulance companies, in addition to the regimental medical equipment and base hospital, would meet the actual hypothetical requirements of the provisional division of approximately 11,000 strength. Upon this assumption the organization was perfected.

It may be interesting to glance at the development of the Medical Department at maneuvers, beginning with the first in this region, when in 1888 the Fifth Cavalry assembled near Guthrie, Okla., followed the next year by the much more extensive operations at Chilocco under General Merritt; then the maneuvers of 1902, and finally those of 1903, at all of which the undersigned acted as chief surgeon.

In 1888–89 one looked in vain for any regulation prescribing the medical equipment and personnel for any command beyond the mere allowance of medicines, and what it had depended upon the organizing capacity of the medical officer and the complaisance of his commander. What we had at both of these maneuvers was absolutely improvised. The contingency was met, but had it not been no one on the ground could properly have been blamed.

An excellent regimental medical field equipment was devised in 1891 and used until the beginning of the Spanish-American war, when another was substituted, which in turn gave place to that of 1900 and 1901, but even yet the field hospital, as such, was without form and void.

The regulations of 1902 (Manual for the Medical Department) set forth for the first time a detailed statement of the complete equipment of the field hospital and ambulance company, showing exactly the material to be supplied by each department. This was done advisedly, so that there could be no misunderstanding on the part of anyone as to exactly what these organizations consisted of—what was to be supplied by the Quartermaster's Department as well as the Medical Department—what the capabilities of the organizations should be and how they were to be conducted.

Great care was taken to provide for a minimum of clerical work in the assembling of material. A requisition of one line reading, "Medical supplies for three field hospitals" or "Quartermaster supplies and transportation for three ambulance companies," being all that is necessary to indicate to the issuing officer what is needed, and all he has to do is to turn to the regulations for the details.

As these regulations were promulgated shortly before the maneuvers of 1902, and were probably unknown to the Quartermaster's Department, the writer, who was then on duty in the War Department, made out in detail the necessary requisitions upon all departments and assembled at Fort Riley the complete equipment of a field hospital and ambulance company, to which the Surgeon-General added the equipment of three regimental hospitals.

Later, having been detailed as division surgeon, I had an opportunity of observing the efficiency of these organizations and of suggesting that this equipment be permanently retained in the possession of the surgeon, Fort Riley, which was so ordered by the Secretary of War.

Upon receiving notification that I was to be detailed as division surgeon at the Riley maneuvers of this year, I so advised the Surgeon-General, and addressed a communication to the division quartermaster, September 29, 1903, informing him that two field hospitals and two ambulance companies would be organized in connection with the provisional division. No details were entered into except in response to a telegram from him as to the number of animals required by the Medical Department.

This was done advisedly, for if the Medical Department must depend upon the Quartermaster's Department for material vital to its efficiency in the field, that department should be fully prepared to meet the contingency. Such was not the case at Camp Sanger, and such will probably never be the case unless everything, except possibly animals, supplied by the Quartermaster's Department, is turned over to the Medical Department, and actually kept in its possession. There is apparently no more reason why all quartermaster property should be held by an officer of that department than should ordnance or other property. Certainly the present regulation works evil to the Medical Department.

Fortunately most of the supplies that had been accumulated at Fort Riley the previous year, and held there by a specific order, were available, and field hospital No. 1 came from West Point, Ky., complete, except for transportation. So we managed to get along, but it is easy to see that both our field hospitals were completely immobilized for want of transportation that should have been on the ground. We were able to move but two sections of one hospital (No. 3) for use in the maneuvers, and these only by using the transportation pertaining to the ambulance companies, which was actually needed with those organizations. Regarding minor things, such as stoves, picket lines, cooking apparatus, tent pins, etc., we were at endless trouble getting them, though most of these had been assembled by me the previous year, and that we were able to accomplish anything satisfactorily was simply due to the enthusiasm and untiring energy of the medical officers on duty with the division organizations. I feel it my duty to make this specific statement so that our requirements will be impressed upon the Quartermaster's Department, and when we are turned out for real war the Medical Department will not be subjected to the petty annoyances and delays which, with less experienced medical officers, would mark the difference between success and failure with us, when failure would mean much to the Army and the country.

The actual status of the transportation is shown in the following table:

Animals with divisional organizations.

PROVISIONAL DIVISION, 1903.

Organizations.	Number ambulances.	Number wagons.	Number mounts.	Number draft.
Ambulance company No. 1	11	3	[a]12 [b]2	[a]56
Ambulance company No. 3	12	2	[a]6 [b]10	52
Field hospital No. 1				
Field hospital No. 3		2	[a]4	8
Total	23	7	34	116

REGULATION ALLOWANCE.

Ambulance company, each	[c]10	3	20	52
Field hospital, each		8	10	32
Total	10	11	30	84
For all organizations	20	22	60	168
Surplus	3			
Deficiency		15	26	52

[a] Mules. [b] Horses. [c] Including ambulance supply wagons.

Several of the hospital corps detachments joining from posts were mounted as required by regulations, but at some stations the applications of medical officers for the prescribed mounts were turned down by the local authorities.

Organization.—Based upon the constituents of the provisional division the personnel of the Medical Department should have been—

	Medical officers.	Line officers.	Noncommissioned officers.	Privates.
According to regulations	68	4	100	412
There were actually present	48	0	74	279
Shortage	20	[a]4	26	133

[a] The application for the detail of 4 line officers as quartermasters of the divisional organizations was disapproved on the ground that no officers were available.

The absence of 31 per cent of the medical strength of the division threw an undue proportion of the work upon those present, and made the best theoretical results impossible. Of course, the first duty was to care for the actual sick, and this was splendidly done; the next was participation in the tactical problems, in which the best results were not obtainable, due to the lack of adequate personnel and transportation.

The medical arrangements from front to rear were as follows:

With each regiment of infantry, including the battalion of the Twelfth, and excluding the Kansas and Texas regiments, which brought nothing, there was a regimental hospital. The cavalry brigade had three hospitals; the engineers and signal corps had one, and the artillery one.

Field hospitals Nos. 1 and 3 were originally intended to meet the actual and maneuver requirements of the division, but, as previously stated, the lack of transportation only permitted the mobilization of two sections of No. 3 for maneuver work, and caused No. 1 to become fixed, not a tent peg being drawn from the time this hospital was pitched, at the beginning of the camp, until it was struck, when the division disbanded. It was however, very useful, and completed the picture of field medical organizations by representing a fixed hospital on the lines of communication, through which all of the sick of the camp passed to the base hospital, or were returned to their commands.

The base hospital was organized, as last year, from the post hospital at Fort Riley, with the addition of tent wards for 100 patients. This hospital was, upon my recommendation, made ready in advance for the reception of patients and the attachment of unattached men of the hospital corps, who would join before the organization of the division. It performed a particularly useful part in the latter respect in the beginning, as nearly fifty men of the hospital corps reported unattached and were cared for at the base hospital until the divisional units were organized.

The actual number of beds with mobile medical units was 336. The base hospital actually had 150 beds, but of course was capable of indefinite extension.

The personnel of the divisional organizations was as follows:

	Medical officers.	Noncommissioned officers.	Privates.
Field hospital No. 1	2	6	34
Field hospital No. 3	3	6	28
Ambulance company No. 1	2	14	44
Ambulance company No. 3	3	8	44
Base hospital [a]	4	6	30
Total	14	40	180

[a] Including permanent detachment.

The sources from which the personnel was drawn were: Company of Instruction No. 1, Hospital Corps; unattached men from all parts of the United States, and men from the various detachments which came with troops, and which detachments were for this purpose reduced to one noncommissioned officer and four men to a regiment during the maneuvers.

Noncommissioned officers and orderlies were on duty with the brigade surgeons.

Most of the equipment of the mobile hospitals was of the latest pattern, which I believe, as far as it goes, is not excelled by that of any army.

I say "as far as it goes" advisedly, for there are some things yet to be worked out before it may be said that the medical department is perfectly equipped for field service. Anyone who observed the regimental aid station equipment being carried out to the fighting line in an escort wagon must have been impressed with the futility of such means in actual warfare, and unless some more practical means is devised to get this equipment where it is needed, near the front, it will never get there. Much attention was attracted to a pack mule which carried the medical equipment of the Tenth Cavalry after a plan devised by First Lieut. H. L. Gilchrist, assistant surgeon, U. S. Army. Such is one of the means used in other armies to meet this requirement, and our equipment of 1891 was devised with this in view, but I am persuaded that a cart for one or two animals, also quite generally employed elsewhere, is the most practical solution of the question. This is an important matter and should be settled without unnecessary delay.

The method of packing the material of the field hospital is not yet thoroughly digested. What we have was improvised by the writer to meet the requirements of the 1902 maneuvers, but no opportunity was had by him to perfect it. It was his intention to pack as much of this material as possible in units, each a duplicate of the other. By this plan the character of the service would determine the amount of the material—e. g., if the maximum demand of three months required, say, 60 units, then one month would require 20, and one week 5. Of course, certain of the material would be constant, no matter what the period, such as tentage, furniture, and bedding units, cooking appliances, office, dispensary, and operating outfits, etc. These important details are still nebulous, and should be made clear.

The equipment of the ambulance company is not yet fully satisfactory; the ambulances themselves require numberless little improvements, and a closer inspection in manufacture than those yet issued have apparently received. Any severe work causes a breakdown somewhere, chiefly in the seats; the water cans will not hold water and the store boxes will not exclude it. These, however, are matters of detail. The arrangement of the ambulance supply wagon has never been settled. It should really take on the character of the medicine supply wagon of the civil war. In fact, the entire medical equipment of this organization should be carefully gone over. It should certainly have a field desk, if nothing else.

Of the two ambulance companies of the division, No. 1 was made up from the ambulances in store at Fort Riley, and was a very uniform and soldierly appearing organization. No. 3 was made up from the ambulances brought in with the several commands, and in this particular was as varied as was Falstaff's army; ambulances of models of 1892, 1898, and 1901, together with modifications of these, constituted the equipment of this company, and it made anything but a uniform looking or working organization. All ambulances of obsolete model should be turned in to the Quartermaster's Department to be used as spring wagons, and only the latest model used for medical department work. It is quite as important from our standpoint that the sanitary soldier should know his ambulance as from the artilleryman's standpoint that the gunner should know his gun.

The question of wheeled transport is one of the most serious problems confronting the medical department in the field, and upon its solution depends in a large degree the success of our department. It can not be left to any other department, for if it is, then are we the slaves of an irresponsible master, and yet we can not properly care for it unless additional means to this end are furnished us. Foreign armies have met this in two ways—one by adding a class of nonmedical officers to the cadre of the medical department for nonmedical services, and the other by attaching transportation from a regularly organized military transport corps, thoroughly disciplined and trained in their duties; in a word, soldiers, and not an aggregation of "muleskinners," picked up anywhere and wholly unfamiliar with discipline of any kind. A general service corps is one of the most crying needs of the Army. When such a corps shall be organized the field work of the medical department will be easier of accomplishment, for then as many sections of the transport division of the general service corps as may be necessary will be attached to us for duty; will, in fact, become a part of us, entirely under our control, and will relieve us of much that adds to the weight of our already overburdened shoulders. I presume this statement is equally applicable to every other branch of the Army.

Before leaving the subject of organization, I venture to invite attention to the importance of efficient administration. The work that falls upon the administrative medical officer of a large body of soldiers must be experienced to be appreciated. It will be observed that the strength of the medical department of the provisional division was nearly as great as that of some of the battalions. Had any major there been notified to proceed to Fort Riley for the purpose of organizing a battalion from little detachments of officers and men, to be gathered from every section of the country, and have it ready for immediate service, his task would have been identical with that of the division surgeon.

The provisional division was in existence scarcely more than two weeks, and yet during that period the records of my office show 334 letters sent and 261 letters received. Each day's reports of sick and personnel were consolidated, so that the division commander might have at hand an exact knowledge of the amount of noneffectiveness from sickness, and the strength of the personnel to care for it. Final reports of sick and wounded and personnel were forwarded to the Surgeon-General.

The average sickness was 2.2 per cent. At no time did it reach 3.5, nor should it, even under less favorable circumstances, for the command had left its sick and weaklings at home posts. The Third Corps at Chickamauga had very little more sickness for the first month it was in camp there, but later the story was different.

Ten cases of typhoid fever occurred, with one death. The outbreak was investigated by a board of medical officers, who found that this infection was in nowise due to insanitary conditions at the camp, but to importation, exactly as was the case during the Spanish-American war. The infected command was at once isolated. This was not done at Chickamauga, not because the medical department did not recommend it, but because the responsible officer failed to see the necessity. In camps typhoid fever should be as carefully quarantined as any other infectious disease. One case of scarlet fever appeared.

The sanitary arrangements of the camp and the police rules were practically the same as last year, as was the camp ground. The arrangements were of the most primitive character; the rules were sound and strictly enforced, and the health of the command, as previously stated, was satisfactory.

It is probable that a camp with such sanitary appliances, or lack of them, could be maintained two or three weeks each year for an indefinite period without serious detriment to health, provided the conservancy was as good. But we can hardly hope to find in many of our camps of mobilization such a man to command or such men to obey as were found at Riley, and yet this is the example of castrametation we hold up for our citizen soldiery to follow. If we learned anything in the Spanish-American war, it was that such sanitary arrangements as were had in the maneuver camps of 1902–3 were bound in time to propagate typhoid, and it may well be asked, in the light of that experience, if, all other things excluded, we have a moral right year after year to use methods of camp sanitation that proved absolutely defective when we most needed the best devisable. I know not if General Orders No. 170, series of 1899, has been repealed; it certainly was not observed either at Camp Root or Camp Sanger, but I do know that the plan of latrines therein described was the result of a very bitter experience, in which many lives were needlessly sacrificed. To be sure, there is another side to this question, and the lesson given at Riley may not have been intended to convey the idea and methods of a fixed camp, but to show how a temporary camp of troops in campaign should be cared for. From this standpoint the lesson was well taught.

The method of conservancy employed last year was followed this. The latrines were limed and burned out daily; kitchen wastes were thrown into the river and manure was carried a suitable distance away. No serious sanitary faults were committed and little ones were at once discovered and corrected. All camps were good, but of course some were much better than others, in which connection I would respectfully invite attention to the numerous compliments paid to the camp of the divisional medical establishments.

The medical department took its appropriate part in the tactical problems and, mutatis mutandis, did about what it would have done had the rifles contained bullets instead of hot air.

The importance to them of some knowledge of the tactical working of the medical department of an army has apparently not penetrated the minds of all combatant officers. It has been truly said that a medical department is a handicap to a fighting force, but not so great a handicap as uncared-for wounded. And what general would be without a medical department with a fight in immediate prospect? The exact weight of the handicap should be known to every commander, and the fighting contingent trained to carry it. Armies have been destroyed and campaigns lost for want of a due appreciation of the least of these handicaps, the medical department, and this fact should receive the consideration due it.

In concluding this phase, I desire to reiterate that too much stress can not be laid on the statement in my last report that the maneuver problems should be made as realistic as possible in every respect, so that the relative value of each element can be determined, and the work made equally instructive to all engaged. The medical department very much needs instruction in actually handling wounded on the battlefield, and the line to learn what its proper share in this direction is.

The attempt to carry on in the field the theoretical instruction of the post was not entirely successful, nor was it expected to be. The experience gained in campaign, which the maneuvers closely approximate, was all and more than the men of the hospital corps could assimilate. Everything they had to do was new to the most of them and a valuable experience to all. Especially was this so in the divisional medical organizations.

In addition to the lectures by the division surgeon in the general course on "The Medical Department in Actual Service," several lectures by medical officers were given at Field Hospital No. 3, as follows:

Lecture I.—Lieut. Col. J. Van R. Hoff, deputy surgeon-general, U. S. Army: "The Medical Officer," Tuesday, October 20.

Lecture II.—Maj. E. B. Frick, surgeon, U. S. Army: "A Brief Consideration of Tropical Diseases and their Prevention Among Troops," Wednesday, October 21.

Lecture III.—Capt. F. P. Reynolds, assistant surgeon, U. S. Army: "Instruction of the Hospital Corps," Sunday, October 25.

Lecture IV.—Capt. F. A. Winter, assistant surgeon, U. S. Army: "Field Sanitary Organization," Monday, October 26.

Lecture V.—Lieut. Col. E. F. Gardner, deputy surgeon-general, U. S. Army: "Sanitary Inspections and Reports," Monday, October 26.

The subjects of the lectures were quite generally discussed by the medical officers and served to promote a mutual understanding of each other and a broader view of the work of the Medical Department. Line as well as our own officers were invited.

The distribution of the personnel at the conclusion of the maneuvers was easily and quickly accomplished by returning all men temporarily detached from organizations on the ground to their proper commands, and concentrating all unattached men in ambulance company No. 1, whence they were distributed by rail to their various stations.

Practically all reports of sick and wounded and returns of the hospital corps were in the hands of the division surgeon the day the command dispersed, and were duly forwarded to the Surgeon-General. Final reports from the Texas regiment never reached this office.

The conclusions to be drawn from the experience of the Medical Department in the maneuvers of 1903 are:

1. Its commissioned and enlisted personnel was inadequate. I do not mean inadequate for the care of the actual sick, for what sick we had were very well cared for, but for the maneuver work as well. Each regiment should have had at least two medical officers actually with it, and the present allowance to the divisional medical organizations should be the minimum, to be supplemented in actual (maneuver) service by the third regimental officer.

2. I was fortunate in finding two experienced medical officers of the National

Guard, who were detailed as brigade surgeons of the Third and Fourth Brigades, but one can not hope to be always equally fortunate in this respect, and therefore provision should be made to have at all maneuvers a sufficient number of ranking medical officers to fill the administrative positions. Such was not the case at Camp Sanger.

If the object of these functions is to teach practical warfare the teacher should be a professor of the art and not be sought in the ranks of amateurs, no matter how bright or experienced the latter.

3. I find upon rereading my report of the maneuvers of 1888 the Medical Department has gotten during the fifteen years interval all therein recommended, except a satisfactory solution of the matter of transportation. To be sure, regulations state exactly what we shall have, but the quartermaster determines whether or not we shall get it. If the General Staff, or any other authority, will only arrange matters so that the Medical Department can obtain from the Quartermaster's Department or be permitted to purchase for itself things absolutely essential to its efficiency in active service, a great thing will have been accomplished.

4. The care of the wounded, except in its strictly professional application, pertains quite as much to the line as to the Medical Department. It assumes great importance in war, so great indeed that the results of campaigns are influenced thereby, but in peace this is apparently forgotten or ignored. I believe more attention should be given to this phase of the maneuvers—not during the contact, to be sure, for fighting is the first business of soldiers, but after the contact details from the companies should be made to search for the wounded and carry them into the aid stations, just precisely as would be done on the battlefield.

These various reports so fully cover all points of particular interest to the Medical Department in connection with the maneuvers as to render superfluous their further extended discussion.

I am thoroughly in accord with the conclusions reached by the chief surgeons in reference to the sanitation of camps. Insufficiency of transportation and duality in its control have always proved a stumbling-block in the way of efficient medical service in the field. The subject has received the close study which its importance merits, and the requirements of the Medical Department have been clearly presented to the General Staff.

Deficiency in the personnel of the regular establishment was glaringly apparent. This was true, notwithstanding the fact that all posts, as far as possible, had been stripped of medical officers and hospital corps men. It is manifest that a department which can not supply sufficient officers and men to participate in maneuvers is dangerously undermanned.

The medical and hospital corps personnel of the militia is not yet properly organized or instructed. The field organization of all States should correspond to that of the Regular Army, and sufficient instruction should be given so that the rudiments need not be taught at maneuvers which should be devoted to the application of principles already learned and to advanced work.

SPECIAL SANITATION.

A high compliment has been paid the Medical Department of the Army in the selection of several of its members to take charge of important sanitary works not directly connected with the military service.

Col. W. C. Gorgas, assistant surgeon-general, U. S. Army, and Maj. L. A. La Garde, surgeon, U. S. Army, have been detailed for duty as sanitary officers of the Isthmian Canal Commission, the former being the senior sanitary officer of the Commission. The great advances which have been made in tropical sanitation in recent years, especially in the control of yellow fever and malarial fever with which control the name of Colonel Gorgas is already so well identified, give promise of a repetition of the brilliant success attained at Havana.

Capt. Bailey K. Ashford, assistant surgeon, U. S. Army, was detailed as the senior member of a board appointed for the study of anemia in Porto Rico by the governor of that island. In a preliminary report Captain Ashford shows the widespread prevalence of the disease, that it is due to infection with the uncinaria Americana, and that it yields readily to treatment with thymol. The disease affects a very large proportion of the dwellers in the country districts whose occupation brings them in contact with the soil, and as it is also widespread in the southern United States and in the Philippines the results obtained by this Commission will have an important economic bearing. Captain Ashford deserves great credit for the excellent work he is accomplishing.

Maj. E. C. Carter, surgeon, U. S. Army, and Capt. E. L. Munson, assistant\surgeon, U. S. Army, have acted respectively as commissioner and assistant to commmissioner of public health for the Philippine Islands and the city of Manila, and have rendered admirable services in that connection.

Maj. Thomas U. Raymond, surgeon, U. S. Army, has been on special duty with the Louisiana Purchase Exposition and has general charge of sanitary conditions in the Exposition grounds, while Capt. Llewellyn P. Williamson, assistant surgeon, U. S. Army, has had similar duties in connection with the Philippine exhibit and the Philippine village.

RECRUITING.

During the year 32,213 applicants for enlistment were examined: White, 30,634; colored, 1,271; Filipino, 308. Of these 20,089 were accepted: White, 18,991; colored, 809; Filipino, 289. The ratio of those accepted per thousand examined was 623.63 for the total; 619.93 for whites; 636.50 for the colored; 938.31 for Filipinos. These figures represent men found physically qualified and enlisted from among those who were presented to medical examiners. In reality, a much smaller proportion of applicants for enlistment was accepted, as in accordance with the usual practice the most undesirable candidates were rejected by recruiting officers or sergeants and therefore do not appear in these statistics.

In 1902, 736 Filipinos were examined, of whom all but 20 were accepted. Figures for Filipinos, while of interest for comparison one with another by years, should not be contrasted with those of other classes, as this would result in a false estimate of the physical fitness for soldiers of the Filipino people as compared with whites and colored. The much larger proportion of candidates accepted for enlistment among the former is due to the fact that recruits for the Philippine Scouts are examined much less rigorously than those of the Army generally, and that they are picked men, the great majority of whom have had previous service of one kind or another. Among the whites and colored the ratio of accepted recruits does not vary materially from that of the preceding year, in which it was 667.34, while this year it is 620.59 per thousand. The slight fall is ascribed to strong efforts made during the year to prevent medical examiners from accepting physically unfit men, rather than from any change in the material offering itself for enlistment.

On account of the lack of medical officers, very few of them are available for the examination of recruits, and this important duty is in consequence largely delegated to civilian physicians. Occasionally gross carelessness is manifested by a civilian examiner, and he is no longer given employment in that capacity. However, the majority of poor men are accepted on account of ignorance on the part of these examiners as to what should be the physical characteristics of recruits. Though hard and fast rules are laid down to govern the examination of candidates for enlistment, knowledge is required to apply such rules or desirable men will be rejected and undesirable ones accepted. There is no means by which the loss to the Army of promising material because of the former error can be estimated, but that under the present system too many physically unfit men are accepted for the service is clearly shown by the numerous discharges for disability soon after enlistment and by the reports of medical and other officers on the poor quality of recruits received at posts. The only sane policy to follow is to discharge all physically disqualified men as soon as they are discovered, as retaining them in the service can only result in further loss to the Government in an attempt to build a superstructure without a foundation. The expense incurred in consequence of such enlistments invariably falls on the Government, as the recruiting officer can not be held responsible, for he naturally depends on the physical examination by the physician, and the latter is a civilian employee, from whom nothing can be collected, and whom it is frequently unwise to discharge, as only men with less qualifications for the examination of recruits may be available.

Moreover, as a result of the ineffective methods of examination, a class of men is taken on the border line between physical fitness and unfitness who would never have been accepted by a competent examiner. Once enlisted, some of these men are retained, as the Government has been put to considerable expense on their account, and there is a chance that they may become of value. This hope often proves an elusive one, and such men only serve to swell the muster rolls.

The physical examination of recruits is a specialty, the mastery of which requires instruction, study, and experience. It is not a branch of general medicine in which civilian practitioners can be expected to attain the results of qualified officers of the Medical Department. The efficiency of an army depends largely on the physical fitness of its recruits, and for their examination the technical skill of a physician in active practice, with knowledge of the requirements of the service, in other words, the skill of a trained medical officer is needed, who should be held to a rigid accountability for accepting physically unfit men. It is unfortunate that under present conditions such officers are not available, and no one can be made responsible.

The greatest number of rejections of applicants was made on account of imperfect vision, heart disease, varicose veins, varicocele, hemorrhoids, and venereal diseases. The heights of accepted recruits vary from 4 feet 10 inches among the Filipinos, to 6 feet 4 inches and over for 5 Americans. The chest mobility of a large proportion of the men enlisted was 3 inches, and very few were taken in which it was less than 2 inches; above 5 inches was also rare, the very greatest expans ons recorded in some candidates being due to muscular action, and not a measure of the expansibility of the chest cavity.

Nativity of recruits accepted during the year 1903, with ratios per thousand accepted.

	White.		Colored.		Filipino.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States (continental)	16,130	802.93	802	39.92			16,932	842.85
Porto Rico	15	.75	1	.05			16	.80
Pacific Islands					289	14.39	289	14.39
England	343	17.07	1	.05			344	17.12
Scotland	76	3.78					76	3.78
Ireland	602	29.97					602	29.97
Canada	273	13.59	2	.10			275	13.69
France	28	1.39					28	1.39
Holland	34	1.69					34	1.69
Denmark	75	3.73					75	3.73
Scandinavia	199	9.91					199	9.91
Germany	766	38.13					766	38.13
Switzerland	58	2.89					58	2.89
Austria	128	6.37					128	6.37
Hungary	14	.70					14	.70
Russia	118	5.87					118	5.87
Italy	43	2.14					43	2.14
Cuba			1	.05			1	.05
Others	89	4.43	2	.10			91	4.53
Total foreign	2,846	141.66	6	.30			2,852	141.96
Grand total	18,991	945.34	809	40.27	289	14.39	20,089	1,000.00

Causes of rejection among 32,213 candidates for enlistment examined during the year 1903, with ratios per thousand.

Number examined	White, 30,634.		Colored, 1,271.		Filipino, 308.		Total, 32,213.	
Causes of rejection.	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.
Special causes.								
Physical debility	7	0.24					7	0.22
Tuberculosis of lungs and other organs	143	4.67	9	7.08	4	12.99	156	4.84
Imperfect vision	914	29.83	15	11.80			929	28.84
Heart disease	919	30.00	19	14.95	2	6.49	940	29.18
Goiter	6	.20					6	.19
Varicose veins, varicocele, and hemorrhoids	1,255	40.96	18	14.16	1	3.25	1,274	39.55
Hernia	380	12.40	5	3.93			385	11.95
Flat feet	133	4.34	1	.79			134	4.16
General causes.								
[Excluding those above.]								
Epidemic diseases	1	.03					1	.03
Venereal diseases	800	26.11	65	51.14	3	9.74	868	26.94
Other general diseases	17	.55			1	3.25	18	.56
Diseases of the nervous system	20	.65					20	.62
Diseases of the eye	74	2.42	3	2.36	1	3.25	78	2.42
Diseases of the ear	140	4.57	4	3.15	1	3.25	145	4.50
Diseases of the circulatory system	23	.76	1	.79	1	3.25	25	.78
Diseases of the respiratory system	159	5.19	11	8.65	1	3.25	171	5.31
Diseases of the digestive system	499	16.29	11	8.65			510	15.83
Diseases of the genito-urinary system	146	4.77	5	3.93	1	3.25	152	4.72
Diseases of the skin and cellular tissue	245	8.00	10	7.87			255	7.92
Diseases of the organs of locomotion	369	12.04	11	8.65			380	11.80
Injuries (external causes)	106	3.46					106	3.29
Overheight	1	.03					1	.03
Underheight	94	3.07	4	3.15			98	3.04
Overweight and obesity	20	.65					20	.62
Underweight	396	12.93	11	8.65			407	12.63
Imperfect physique	528	17.23	11	8.65	2	6.49	541	16.79
Mental insufficiency	43	1.40	5	3.93			48	1.49
Unclassified	1,438	46.93	167	131.40			1,605	49.82
Total	8,876	289.74	386	303.70	18	58.44	9,280	288.08

Number of white, colored, and Filipino applicants for enlistment examined physically during the year 1903, with the number accepted, rejected on primary examination, and declined, with ratios per thousand.

	White.		Colored.		Filipino.		Total.	
	Number.	Ratio per 1,000 white examined.	Number.	Ratio per 1,000 colored examined.	Number.	Ratio per 1,000 Filipinos examined.	Number.	Ratio per 1,000 examined.
Examined	30,634	1,000	1,271	1,000	308	1,000	32,213	1,000.00
Accepted	18,991	619.93	809	636.50	289	938.31	20,089	623.63
Rejected (on primary examination)	8,876	289.74	386	303.70	18	58.44	9,280	288.08
Declined	2,767	90.33	76	59.80	1	3.25	2,844	88.28

DISCHARGES FOR DISABILITY.

During the year 1903, 1,582 soldiers were discharged because of physical disability; 1,248 became disabled after entering the service, of whom 877 were discharged for causes incident thereto and 371 for causes not so incident. Three hundred and thirty-four enlisted men were discharged for physical disabilities existent prior to enlistment. Stated in rates per thousand a total of 23.39 per thousand mean strength was discharged for physical disability of whom 5.22 were for causes existent prior to enlistment. It is apparent from these figures that more than one-fifth of the total number of such discharges were for causes existent prior to enlistment. This can not be regarded as a good showing.

It is true that with the most rigid examination some physically unfit men will be accepted. It is not believed, however, that one-third of the recruits who were afterwards discharged for disability during the year should have been passed physically. As far as known, it has been impossible to hold anyone responsible in a single case for the expenses incurred, and at a conservative estimate the Government has paid all the costs connected with the enlistment of over 200 men which would not have been incurred, or which could have been fixed on responsible officers, if medical officers of the Army had been available for the examination of recruits.

HEALTH OF THE ARMY.

The admission rate per thousand of strength of the whole Army for disease and injury during the last calendar year shows an improvement over that of 1902, the rates being 1,451.13 and 1,716.51, respectively. This reduction in the prevalence of disease and injury serves to further show the gradual improvement in the condition of the troops which has been noted since sanitary matters have been given the attention due them. Notwithstanding the fact that a mean strength of 25,379 troops were on foreign service during the year, discharges for disability numbered but 1,582, equivalent to a rate of 23.39 per thousand men, while only 629 deaths are recorded, equal to a rate of 9.30 per thousand, as compared with 23.32 and 15.49, the corresponding rates for the previous year. While the rate of discharge for disability remained as high as last year the death rate shows a decided improvement, being slightly more than half the rate of 1902. To the comparatively small number of cases of cholera in the Philippine Islands may be attributed in no small degree the lessened rate of mortality.

The number of cases and rates per thousand of mean strength for disease in the Army reported in the calendar year 1903, were as follows: Admissions, 83,096, rate, 1,228.45; discharges for disability, 1,462, rate, 21.61; deaths, 475, rate, 7.02. Those for external causes: Admissions, 15,063, rate, 222.68; discharges for disability, 120, rate, 1.77; deaths, 154, rate, 2.28.

The admission rate in the United States per thousand for disease and injury was 1,206.89 and death rate 5.94, compared with 1,343.77 and 7.83 in 1902. Of this rate 961.50 men per thousand were admitted and 4.12 died from disease, and 245.39 admitted and 1.82 died from external causes. These rates compare most favorably with those of 1901 and 1902.

The Pacific Islands and China furnished 44,767 admissions to sick report during the year, equivalent to a rate of 1,879.54 per thousand men, of which 53 were discharged on surgeon's certificate of disability and 375 died, giving rates of 2.23 and 15.74 respectively per thousand of mean strength. These rates are less than the low figures of 1901, when the corresponding statistics for admissions and deaths were 1,928.14 and 17.96 per thousand of strength, and a vast improvement over the exceptionally high rates of last year. For every thousand men on foreign duty 1,701.28 were admitted for disease, 12.55 per thousand of which terminated fatally. For external causes only 178.27 out of every thousand were entered on sick report and the small rate of 3.19 per thousand ended in death.

From Cuba and Porto Rico 2,384 admissions to sick report were reported, equivalent to a rate of 1,527.23 per thousand of mean strength, with rates of discharge for disability and death of 19.86 and 1.92, respectively. These figures show a most satisfactory condition from a health standpoint and demonstrate clearly the results of earnest efforts on the part of those in charge of sanitary affairs affecting the health of the troops. The rate of admission from disease was 1,241.51, of discharge 19.22, and of death 1.28 per thousand men serving in Cuba and Porto Rico, while the corresponding rates for injuries were 285.72, 0.64, and 0.64 per thousand.

The small amount of cholera in the Philippine Islands, as compared with the previous year, speaks well for the untiring efforts of the Army medical officers in preventing its spread among the troops serving at the island stations. The number of posts in the Philippines has been further reduced during the year and better sanitary environments have obtained, since many of the troops have been placed in barracks and a general improvement made in the sanitary conditions of the native towns.

The sanitary improvements in the conditions of the soldiers have gradually lessened the rates of sickness and mortality since the war, and although a large proportion of the troops have been on practically war service in the Philippine Islands since 1898, the rates of sickness and mortality for the calendar year 1903 more nearly approach those of 1897—when the low death rate of 5.11 per thousand of strength for the whole Army was recorded—than at any time since the outbreak of the Spanish-American war. This is a most gratifying state of affairs, and it is hoped that with the present sanitary knowledge put to practical energetic use a further reduction in the rates of sickness and mortality in the Army will be effected.

The food supply of the troops at home and abroad has been reported as generally good; fresh vegetables and meat are supplied, and ice is to be had at practically all military stations.

A few minor criticisms are noted relative to the clothing issued the Army, otherwise the issue is reported as fulfilling all requirements.

Barracks and quarters in the United States are, generally speaking, satisfactory; and while the overcrowding reported last year has been lessened, it will take time to construct new buildings and make the necessary repairs to the old ones in order to obtain sanitary quarters from every standpoint, and consequent diminished rates of sickness and mortality.

INVALIDING FROM THE PHILIPPINES.

From an average strength of 19,029 American troops in the Philippine Islands, 1,074 were invalided home during the year, thus giving an invaliding rate of 56.44 per thousand mean strength. There were 271 deaths among American troops in the Philippines, so that the losses by death and invaliding amounted to 70.67 per thousand mean strength. The further histories of all cases invalided in their relations to the Army have been carefully traced, with the following results:

Five hundred and thirty-nine were returned to duty; discharged: 258 on certificate of disability; 52 by expiration of term of service; 23 by order, and 6 by purchase; 8 died en route to the United States and 14 after arrival; 13 deserted, and 161 were still under treatment at the end of the calendar year. Dysentery and other intestinal diseases were responsible for nearly half of the total number invalided. Chronic dysentery alone was ascribed as the cause of invaliding in 406 cases, and enteritis in 82. The former disease was registered as the cause of 38 discharges on certificate of disability and 4 deaths, and the latter for 10 such discharges and the same number of deaths. Tuberculosis, while responsible for but 70 cases, caused 25 discharges for disability and 9 deaths. Contrary to what might be expected, in view of the general belief in reference to the prevalence and severity of malarial fevers in the Philippines, it was found necessary to send but 59 such cases home, nearly all of which subsequently went to duty, none dying. Venereal diseases were the cause of invaliding in 54 cases, syphilis being responsible for 27 of these, a majority of such cases being severe, as was shown by 18 discharges on certificate of disability. Chronic rheumatism, insanity, diseases of the middle ear, gastritis, Bright's disease, and gunshot wounds were among the other important causes for invaliding.

Cases of disease and injury among soldiers who were invalided home from the Philippines Division, together with their dispositions, in the year 1903.

	Number of cases.	Duty	Discharged from service.				Died.		Deserted.	Remaining sick Dec. 31, 1903.
			Certificate of disability.	Expiration of term.	By order.	By purchase.	En route.	In the United States.		
Typhoid fever	8	6		1						1
Malarial fever:										
Intermittent	7	5			1					1
Remittent	22	18			1					3
Malarial cachexia	30	25		1	4					
Acute dysentery	10	7		3						
Chronic dysentery	406	266	38	20	8	5	3	1	8	57
Beri-beri	8	2	3		1		1			1
Dengue	1									1
Tuberculosis, lungs	64	4	25	1			2	6		26
Potts disease	1									1
Tuberculous abscess	1	1								
Cervical adenitis, tubercular	1									1
Tubercular arthritis	1		1							
Lupus, left cheek	1									1
General tuberculosis	1							1		
Syphilis, secondary	24	6	16							2
Syphilis, tertiary	3		2							1
Chancroid	4	3								1
Gonorrhea	11	6	3	1						1
Gonorrheal epididymitis and orchitis	2	2								
Gonorrheal ophthalmia	4		3							1
Gonorrheal rheumatism	6	1	4							1
Sarcoma, right inguinal region	1									1
Carcinoma, right parotid gland	1			1						
Chronic rheumatism and gout	34	18	10	1						5
Scurvy	1	1								
Diabetes	1		1							
Chronic alcoholism	4	2								2
Narcotic poisoning, chronic	1		1							
General muscular atrophy	1									1
Paralysis, cause not specified	5	1	2							2
General paralysis	1		1							
Insanity[a]	35		30		1			1		3
Epilepsy	10	1	8							1
Neuralgia	5	4								1
Neuritis	10	4	5							1
Neurasthenia	6	3	1	1						1
Cephalalgia, chronic	2		2							
Encephalalgia, chronic	1	1								
Impediment of speech	1		1							
Somnambulism	1		1							
Vertigo, following exposure to sun	1	1								
Masturbation	1	1								
Idiocy	1		1							
Imbecility	2		2							
Mental delinquency	1		1							
Hysteria	1	1								
Hypochondriasis	1	1								
Melancholia, acute	2	1		1						
Conjunctivitis, chronic	1	1								
Retinitis	6	1	2		1					2
Cataract	1		1							
Glaucoma	1		1							
Night blindness	3	1	1							1
Myopic astigmatism	1		1							
Hypermetropic astigmatism	1		1							
Lucoma, following ulcer of cornea	1		1							
Diseases of the middle and internal ear	30	4	17	3						6
Chronic endocarditis	1		1							
Tachycardia	1		1							
Aortic regurgitation	2		2							
Aortic insufficiency and stenosis	1									1
Mitral regurgitation	5	1	3							1
Mitral regurgitation, failing compensation	2			1					1	
Mitral regurgitation, aortic stenosis	1		1							
Cardiac hypertrophy	1		1							
Mitral and aortic regurgitation	2		2							
Cardiac irritability	8	5	3							
Aortic stenosis	1									1
Hemorrhoids	1	1								

[a] Includes cases remaining from last year.

Cases of disease and injury among soldiers who were invalided home from the Philippines Division, together with their dispositions, in the year 1903—Continued.

	Number of cases.	Duty.	Discharged from service.				Died.		Deserted.	Remaining sick Dec. 31, 1903.
			Certificate of disability.	Expiration of term.	By order.	By purchase.	En route.	In the United States.		
Chronic nasal catarrh	2	1	1							
Nasal polypus	1		1							
Disease of the thyroid body	1								1	
Acute bronchitis	2	2								
Chronic bronchitis	8	5		2	1					
Pleurisy	4	1	1					1		1
Asthma	8	3	4		1					
Pulmonary emphysema	1	1								
Diseases of the esophagus	2		2							
Gastritis	30	20	2	4						4
Diarrhea, acute	1		1							
Diarrhea, chronic	3	3								
Enteritis	82	54	10	2	4		2	2	2	2
Ankylostomiasis	8	5	1							6
Inguinal hernia	9	6	2	1						
Fistula in ano	1	1								
Chronic constipation	5	2	1						1	1
Ischio-rectal abscess	1	1								
Pains following operation for appendicitis, due to adhesions	1		1							
Acute hepatitis	1	1								
Hepatic abscess	4	2						2		
Jaundice, catarrhal	1	1								
Acute nephritis	2	1		1						
Bright's disease	12	5	1	1						5
Renal calculi	1			1						
Cystitis	2	2								
Urethral fistula, scrotal	1									1
Acute abscess, plegmon	1	1								
Ulcer	3	3								
Osteo myelitis	1					1				
Periostitis	1									1
Talipes planus, left foot	1									1
Arthritis	1		1							
Synovitis	4	1	2	1						
Ankylosis	3	1	2							
Bursitis	1	1								
Muscular rheumatism and myalgia	2	2								
Senile debility	1	1								
Malingering (sciatica and Pott's disease, earlier diagnosis)	1	1								
Fractures, exclusive of gunshot	9	2	2	1						4
Dislocations	1									1
Wounds:										
Incised	9	1	6	1						1
Lacerated	2		1	1						
Punctured	1		1							
Gunshot	18	2	13	1						2
Other traumatisms	2		1							1
Total	1,074	539	258	52	23	6	8	14	13	161

RACIAL PREVALENCE OF DISEASE AND INJURY IN THE ARMY IN 1903.

The mean strength of the whole Army for the year 1903 of 67,643 men consisted of 59,671 white troops, 3,183 colored, and 4,789 native Filipinos.

The admission rate of the Army for disease and injury during the year was 1,451.13 per thousand of strength, with rates of discharge for disability and death of 23.39 and 9.30, respectively. Of the total number of admissions those of white troops constituted a rate of 1,480.15 per thousand of strength, of which 25.02 per thousand were discharged for disability and 8.21 per thousand died. The negro troops show an admission rate per thousand of 1,025.76, with 12.57

discharged and 11.31 deaths per thousand, compared with 1,372.32, 10.23, and 21.51, the corresponding rates for the native Filipinos.

The negroes, therefore, show the lowest figures in sickness, while the white troops had much the lowest mortality and the most sickness. The Filipinos had the highest mortality rate, almost double that of the negroes, and an admission rate which closely approached the high rate of admission of the white troops.

In admissions for injuries, as in 1902, the Filipino soldiers were singularly fortunate, having a rate in 1903 of only 87.29 per thousand men. On the other hand the rate of mortality of 3.34 per thousand is almost as large as the combined death rates of white and colored troops from external causes. For these causes the negroes led with an admission rate of 255.42 per thousand, compared with 231.80 per thousand for the white troops. White troops to the extent of 2.21 per thousand and colored to that of 1.89 per thousand died of injuries during the year.

The Filipinos show the highest rate of admission for disease during the year, when 1,285.03 men per thousand were entered on sick report. White troops very nearly reach that rate with admissions of 1,248.34 per thousand, while colored troops had the low admission rate of 770.34 per thousand. The low rates among the negroes may be accounted for in part by the fact that no colored troops were on duty in the Philippine Islands during the year. In deaths from disease the Filipinos again led with the high rate of 18.17 per thousand, compared with 6 per thousand for white troops and 9.42 for colored.

The percentage of measles among white troops was 7.63 per thousand men, while only 1 case was reported among the negro troops and 3 among the Filipinos. White troops also led in admissions for mumps, with 7.81 cases per thousand, colored troops 1.26, and Filipinos 4.59 per thousand.

In admissions for consumption, the Filipinos slightly exceeded the negroes, having rates of 7.94 and 6.27, respectively, while the admission rate for white troops is a little more than half that of the colored troops, the latter having the high mortality rate of 4.39 per thousand men. In smallpox the Filipinos led with 1.46 per thousand admissions, while no great difference in its prevalence was observed between the white and colored troops. For typhoid fever the admission rates for negroes and Filipinos were about one-fourth of that for white troops, who were admitted to the extent of 5.66 per thousand men, with a mortality rate of 0.47 per thousand. There was 1 death reported among Filipinos and 1 among the colored troops from this cause.

Malarial fevers again caused considerably higher rates of sickness and death among Filipinos than among the white and colored troops of American birth. They had the high admission rate of 531.22 and death rate of 2.51 per thousand, compared with 183.42 and 0.36 for the white, and 37.39 with no death for the colored soldiers from these fevers. The admission rate for the scouts is lower, but the death rate exceeds that of 1902, when only 1.66 men per thousand died.

The negro troops were entirely free from dengue, while the rates of admission for the white and Filipino soldiers vary but slightly. For Asiatic cholera 105 cases, equivalent to a rate of 1.76 per thousand, with 68 deaths, or a rate of 1.14 per thousand, were reported among the white troops and 44 admissions, and 28 deaths, with rates equivalent to 9.19 and 5.85 per thousand men, respectively, were recorded among the Filipinos, while the colored troops were entirely free from the malady.

Beri-beri, as during the previous year, was almost entirely confined to the Filipino soldiers, who gave an admission rate of 128.21 per thousand men, 4.59 in every thousand terminating fatally. There were 3 deaths from this cause among the white troops. Of venereal diseases the scouts show less than one-half the prevalence compared with colored troops, while the admission rate for white troops was 161.13 per thousand men. The Filipinos again demonstrated their freedom from drunkenness, as only 3 admissions from that cause are recorded, compared with 27.27 admissions per thousand for white troops and 12.56 for colored.

The admission rate for white troops from dysentery was 41.06 per thousand men, of which 0.79 of every thousand resulted fatally, compared with 5.97 and 0.31 and 17.12 and 0.42, the corresponding rates per thousand for colored and Filipino troops, respectively. The Filipino troops with an admission rate of 106.07 nearly approached the rate of white troops for acute and chronic diarrhea and enteritis; from the latter were reported the only deaths from these causes, the rate being 0.23 per thousand men. The colored troops suffered but slightly from these diseases.

In the diseases of the nervous system the Filipino troops show a rate of admission per thousand equal to about one-third of the rate reported for white troops, who had 24.57 men out of every thousand admitted for these affections, while colored troops to the extent of 19.79 per thousand were admitted to sick report for the same causes. The latter led the white troops in mortality rate from nervous diseases, while the Filipino soldiers lost 0.42 men per thousand of strength, a rate slightly in excess of either that for the white or colored troops.

As only a part of the total number of American-born troops served in the Philippine Islands during the year and were thus exposed to some of the most serious maladies which prevail only in that country, and as all the scouts were exposed, the following tabulation is given for a further and more exact comparison of diseases existing among the troops serving in those islands:

Special diseases in Pacific Islands and China, 1903, by races, admissions, and deaths with ratios per thousand of strength.

	White.				Filipinos.			
	Cases.	Ratio.	Deaths.	Ratio.	Cases.	Ratio.	Deaths.	Ratio.
Malarial fevers	8,379	440.33	20	1.05	2,544	531.22	12	2.51
Beri-beri	21	1.10	3	.16	614	128.21	22	4.59
Dengue	2,305	121.13			145	30.28		
Typhoid	94	4.94	17	.89	5	1.04	1	.21
Smallpox	20	1.05	3	.16	7	1.46		
Acute dysentery	1,472	77.36	25	1.31	72	15.03	1	.21
Chronic dysentery	584	30.69	16	.84	10	2.09	1	.21
Acute diarrhea	4,525	237.79	1	.05	493	102.94		
Chronic diarrhea	109	5.73	2	.11				
Cholera	105	5.52	68	3.57	44	9.19	28	5.85
Nervous system	524	27.54	7	.37	41	8.56	2	.42
Respiratory system	1,145	60.17	5	.26	288	60.14	4	.84
Genito-urinary system	403	21.18	5	.26	48	10.02		
Diseases of skin	3,089	162.34	2	.11	512	106.91		
Diseases of organs of locomotion	790	41.52			102	21.30		
Hepatic abscess	11	.58	1	.05	2	.42	2	.42
Catarrhal jaundice	72	3.78			3	.63		
Acute hepatitis	6	.32			1	.21		
Intestinal parasites	75	3.94						

No colored troops on duty in the Philippine Islands during the year.

SEASONAL PREVALENCE OF DISEASE.

With a mean monthly admission rate of 120.93 for disease and injury in 1903, the seasonal curve for the Army as a whole began in January with the high rate of 140.36 per thousand of strength. It fell considerably in February, only to be slightly increased in March, when 129.98 per thousand men for the whole Army were admitted to sick report during the month, with 0.79 deaths per thousand for the same period. In April, May, and June the rate was further reduced, but a slight increase is noted in the rates for the following two months, then a gradual decrease until the minimum was reached in December, when 104.20 admissions per thousand were recorded on the reports of sick and wounded. The maximum rate of mortality was reported in January, when 1 death occurred in every thousand of mean strength, while the minimum death rate of 0.58 per thousand of strength was recorded in June. The maximum and minimum of those constantly sick were reported in January and December, respectively.

During the past year the curve of prevalence of disease and injury among troops serving at home stations was not changed considerably from the characteristic curve of former years. The mean monthly rate of admission per thousand of strength was 100.57, with a mortality rate of 0.50 per thousand. January, February, and March show high rates of admission per thousand of strength, with the maximum rate of 112.57 for the year recorded in March and the minimum of 87.50 per thousand reported in June. Of the mortality rates for the twelve months the maximum of 0.57 per thousand was reported in April and the minimum in June. Of the mean strength serving at home stations 48.49 men per thousand were constantly on sick report.

In the Pacific Islands and China the mean monthly rate of admission was 156.63 per thousand, the maximum rate of 192.38 per thousand being recorded in January and the minimum of 106.77 in December. The number constantly on sick report was 66.16 per thousand men for the year, while the largest mortality rate of any one month occurred in January when 2.13 men died out of every 1,000 serving in the islands and China. The minimum death rate was reached in December when but 0.78 men died per thousand of strength.

In Cuba and Porto Rico the maximum monthly admission rate occurred in October when 145.54 men per thousand of strength were admitted to sick report and the minimum in December when 102.21 per thousand were reported. The mortality rate was very low in these islands. Deaths occurred in only three months of the year, and the low average monthly rate of 0.16 per thousand of strength was recorded. The constantly sick for the twelve months constituted 51.50 per thousand of strength.

Statistical table No. 2 shows in detail by months for the different regions the admissions, deaths, and constantly sick, with rates per thousand of mean strength.

PREVALENCE OF SPECIAL DISEASES.

SCARLET FEVER.

Eleven cases of this disease appeared among the enlisted men of the Army, mean strength 67,643, during the calendar year 1903. None of these cases were fatal. All admissions for this disease occurred among the 42,264 troops stationed in the United States, which gave an admission rate of 0.26 per thousand of mean strength.

MEASLES.

A large decrease in measles in the Army over the previous year was reported in 1903, the cases being equivalent to 6.79 patients in every thousand of mean strength. White troops had 455 cases with an admission rate of 7.63; colored 1 case with rate of 0.31, and Filipinos 3 cases with admission rate of 0.63 per thousand. In Cuba and Porto Rico 1 case with admission rate of 0.64 was reported. Pacific Islands and China had 40 cases, equivalent to a rate of 1.68 and in the United States there occurred 418 cases, giving a rate of 9.89 per thousand of mean strength. No death or discharge resulted from measles in the Army during the calendar year 1903.

MUMPS.

This disease furnished 492 admissions to sick report, equivalent to 7.27 cases per thousand of strength, a considerable decrease over the preceding year. No fatality or discharge for disability resulted. The admission rate in the United States was 9.49 per thousand, while for the previous year a rate of 17.26 was recorded. The decrease in the rate of admission in the Pacific Islands and China over last year was marked, being only 3.32 per thousand of strength, while from Cuba and Porto Rico a total of 12 cases was reported.

SMALLPOX.

In the Army as a whole 39 cases and 3 deaths were reported, with rates of 0.58 and 0.04, respectively, per thousand of strength. Twenty-seven cases, equivalent to 1.13, and 3 deaths, equivalent to 0.13 per thousand, occurred in the Pacific Islands and China, while for troops serving in the United States an admission rate of 0.28 per thousand of mean strength was recorded. The mortality from this disease continues to decrease, the death rate for the previous year being 0.17 per thousand of strength. No case of smallpox was reported from either Cuba or Porto Rico.

INFLUENZA.

Of this disease 2,330 cases were reported from the Army, equivalent to 34.45 cases per thousand of strength, which shows a decided increase over last year, when the admission rate was but 12.97 per thousand. Of the total number of cases 2,192 occurred in the United States, equal to a rate of 51.86 per thousand; 104, equivalent to a rate of 66.62, in Cuba and Porto Rico, and 34 cases, with a rate of 1.43 per thousand, occurred in the Pacific Islands and China.

DENGUE.

Dengue gave quite a large admission rate in the Pacific Islands and China, where 2,450 cases were admitted to sick report, equivalent to a rate of 102.86 per thousand. No fatality was reported from this large number of cases. The rates of admission reported for the troops serving in the United States and Cuba and Porto Rico were 0.21 and 2.56, respectively.

YELLOW FEVER.

Yellow fever appeared in two posts during the year 1903, though not a single death was due to this disease. The total number of cases was but 6, of which 5 occurred at Fort McIntosh, Tex., and 1 at Fort Sam Houston, Tex.

The original source of the infection of Texas was from the Mexican Gulf coast. Monterey, Mexico, suffered from an extensive epidemic of the disease, and was apparently responsible for the contamination of Laredo through the agency of persons sick with yellow fever who infected the numerous normal stegomyia existing at that town and in its vicinity. The exact date when the disease invaded Texas is unknown, though there is reliable evidence to show the existence of a short active fever at both Nuevo Laredo, Mexico, and Laredo, Tex., as early as May 13, 1903, attacks of which conferred immunity against yellow fever later in the year. Incidentally it is interesting to note that those persons who had suffered from the so-called dengue fever at Laredo within the past nineteen years were also exempt from yellow fever during its epidemic prevalence.

On the approach of summer a sanitary circular, Circular No. 9, Headquarters Department of Texas, calling attention to the various diseases conveyed by flies and mosquitoes, with the methods for their prevention, was issued by department headquarters on recommendation of the chief surgeon. In August rumors of yellow fever in Mexico became so insistent that further action for the protection of the border posts seemed necessary to Maj. Charles F. Mason, surgeon, U. S. Army, acting chief surgeon Department of Texas, and the following circulars were issued on his recommendation:

CIRCULAR No. 15. HEADQUARTERS DEPARTMENT OF TEXAS,
San Antonio, Tex., August 17, 1903.

The following communication is published for the information of this command, and post commanders are directed to carry out in detail the recommendations contained therein.

By command of Brigadier-General Grant:

S. W. TAYLOR,
Lieutenant-Colonel, Artillery Corps, Acting Adjutant-General.

HEADQUARTERS DEPARTMENT OF TEXAS,
CHIEF SURGEON'S OFFICE,
San Antonio, Tex., August 15, 1903.

SIR: In view of the appearance of yellow fever at various towns in Mexico, and the possibility of its spread across the border into Texas, I have the honor to recommend that the attention of post commanders be called to the importance of giving their personal attention to the carrying out in detail of the recommendations now and heretofore made with a view to the suppression of insect-borne diseases.

Conclusive evidence has shown that yellow fever is always and only conveyed by the bite of a particular mosquito (*Stegomyia fasciata*), and that measures of prevention should be directed to the destruction of mosquitoes, and to the prevention of infection of the mosquitoes by protecting yellow-fever cases from access by them. It must be remembered that the mosquito is not dangerous until she has herself been infected by sucking the blood of a yellow-fever patient. The danger lies in the early unrecognized cases which infect the mosquitoes in their vicinity.

As most of our posts are near communities over which we have no control, our only protection is vigilance and an incessant warfare against mosquitoes. Attention in this connection is invited to letter from this office, dated April 9, 1903, and published in Circular No. 9, from your office, dated April 13, 1903.

I recommend that the work of screening all barracks and quarters, manholes, ventilator openings, barrels, etc., containing standing water, be pushed vigorously, and post commanders be required to report progress and completion of the work, and whether it has been done in such a manner as to be thoroughly effective.

That all occupants of quarters and all organization commanders be held strictly accountable for the proper use of screens and for the protection of all standing water on their premises.

That the police officers of each post be held personally responsible for the proper draining, filling, or protection by oiling of all accumulation of water outside of premises, for the removal of all possible receptacles, such as old cans, crockery, etc., and the proper condition of surface drainage, etc.

That the senior medical officer at each post keep himself in touch with the local health authorities, keep himself posted as to the prevailing diseases in his locality, and endeavor to secure cooperation in carrying out these measures in adjacent civil communities.

Should yellow fever develop in the adjacent communities, soldiers and their families and officers' servants should not be allowed to visit the towns, nor should officers and their families be allowed to do so except on business. Ordinary business communication may go on, but no visitors should be received in any occupied houses.

Two mosquito-proof rooms with wire-gauze ceiling, seven feet from the floor, should be prepared at or near the hospital, the one for the reception of suspicious cases and the other for the treatment of yellow-fever cases.

Very respectfully,

CHAS. F. MASON,
Major, Surgeon, U. S. Army, Acting Chief Surgeon.

The ADJUTANT-GENERAL, DEPARTMENT OF TEXAS.

CIRCULAR }
No. 17. }

HEADQUARTERS DEPARTMENT OF TEXAS,
San Antonio, Tex., September 4, 1903.

The following communication is published for the information of this command. Surgeons of posts are directed to carry out in detail the recommendations contained therein.

By command of Brigadier-General Grant:

S. W. TAYLOR,
Lieutenant-Colonel, Artillery Corps, Adjutant-General.

HEADQUARTERS DEPARTMENT OF TEXAS,
CHIEF SURGEON'S OFFICE,
San Antonio, Tex., September 3, 1903.

SIR: In view of the possibility of yellow fever crossing the border from Mexico, I have the honor to recommend that surgeons be directed to exercise vigilance in protecting their commands from infection, and to be prepared to stamp it out promptly should it occur.

All suspicious cases of fever should be confined in the "suspicion ward," their pulse and temperature taken every four hours, and urine examined twice daily.

Should an undoubted case occur the patient should be removed to the "yellow-fever ward," the house occupied by him emptied and every room in it carefully fumigated, after closing it tight and pasting up all cracks and openings. Adjoining houses on both sides are then fumigated in the same way.

To kill the infected mosquitoes by fumigation, sulphur, 4 pounds per 1,000 cubic feet of air space, or pyrethrum, 1 pound per 1,000 cubic feet, should be burned; as some mosquitoes will recover after the use of pyrethrum, the room should be opened after three hours and the stupefied insects swept up and burned.

Surgeons who have not a sufficient supply of sulphur on hand should make immediate requisition for it.

Should wire screens not be provided in time, mosquito netting should be used in screening.

Attention of surgeons should be invited to paragraph 166, Manual for the Medical Department, 1902; to Circulars 9 and 15, current series, Headquarters Department of Texas; to "Mosquito work in Havana" (Gorgas), Medical Record, July 19, 1902, and to Circular No. 5, 1901, headquarters Department of Cuba, as published in Report of the Surgeon-General of the Army, 1901.

The report called for in paragraph 166, Manual for the Medical Department, should be made by telegram.

Very respectfully,

CHAS. F. MASON,
Major, Surgeon, U. S. Army., Acting Chief Surgeon.

The ADJUTANT-GENERAL, DEPARTMENT OF TEXAS.

On September 15, in response to a telegram from the surgeon at Fort McIntosh informing department headquarters of the presence of yellow fever at Nuevo Laredo, Mexico, just across the Rio Grande from that post, Major Mason visited Laredo and satisfied himself of the existence of yellow fever in Nuevo Laredo, although the presence of the disease was denied by the Mexican authorities, who called the prevailing fever dengue. At that time, according to the local health authorities, neither yellow fever nor dengue existed in Laredo, T[illegible] though it is now known that they were mistaken in regard to [illegible] former disease.

Upon the discovery of yellow fever at Nuevo Laredo, Fort McIntosh was at once quarantined against both Laredos, as directed in Circulars 15 and 17, Headquarters Department of Texas. On September 25 yellow fever was officially reported at Laredo, Tex. The following tables give the yellow-fever cases and a record of the temperature at Laredo from that date to November 30, 1903, when the epidemic was considered closed:

Numerical report of yellow-fever cases and a record of the temperature at Laredo, Tex., from September 25 to November 30, 1903.

	Yellow-fever cases.	Deaths.	Foci.	Record of temperature.	
				Mean maximum.	Mean minimum.
September	32	1	26	80.6	70
October	571	51	491	85.9	59
November	448	51	404	76	50.2
Total	1,051	103	921	80.8	59.6

	Cases.	Deaths.	Per cent.
American	359	8	2.22
Mexican	692	95	13.72
Both nationalities	1,051	103	9.8

In December, 1903, 26 more cases occurred, with 4 deaths, thus making the total number of cases for the year 1,077, of which 107 were fatal. One nonfatal case was also reported on January 2, 1904.

The methods adopted to prevent the spread of the disease in Laredo were based on those so successfully executed in Havana by Col. William C. Gorgas, assistant surgeon-general, U. S. Army. This was done under the direction of the Public Health and Marine-Hospital Service, which cooperated with the State health officer, Dr. George R. Taber. By the former mosquito nets were furnished and houses screened, houses were fumigated with sulphur for the destruction of mosquitoes, water containers were carefully inspected for the existence of larvæ and were oiled with crude petroleum, and all houses and premises were thoroughly inspected. The latter compelled the inhabitants to strictly observe all of the sanitary rules concerning the destruction of mosquitoes and their larvæ and the early report of all fever cases by the physicians in attendance. No hospital was established by either State or Federal authority, and as the city of Laredo had but two free beds in a hospital, with very few exceptions all cases were treated in private residences. Under these conditions and because of the superstition and ignorance of the Mexican population much difficulty was encountered in preventing the spread of the disease.

During the epidemic at Laredo Dr. R. P. Ames, contract surgeon, U. S. Army, was in direct charge of the sanitation of Fort McIntosh, and is entitled to much credit for his careful management of the situation in a manner which not only protected the post but at the same time interfered to the least possible limit with the routine of its garrison.

In the latter connection it should be mentioned that soldiers and others were by no means absolutely debarred from visiting Laredo, but went into its worst infected district, both by day and night, so long as they wore head nets, gauntlets, and leggings to protect them from the bites of mosquitoes. On account of the nearness of the town to the post, the same equipment was provided for sentries while walking post.

During the epidemic a detention camp was established at Fort McIntosh, from which fifty discharged soldiers, after inspection by the local health officer, were allowed to depart for their homes.

The date on which the first person was attacked by yellow fever in San Antonio can not be determined. Major Mason reports that he was unable to satisfy himself of the actual existence of the disease in that city until the 20th of October, on which date department headquarters and Fort Sam Houston were quarantined in accordance with his recommendation.

This quarantine, which was an absolute one, was maintained until November 19. There then having been no case reported for ten days and the weather being very cold, ice forming for two successive nights, the quarantine was raised from 6 a. m. to 6 p. m. daily, on the promise of the physicians of the advisory committee that the Havana method would be followed.

The measures taken for the protection of troops in the Department of Texas have been based entirely upon the mosquito law of transmission, and have been eminently successful. The posts of Forts Sam Houston and McIntosh are situated within the corporate limits of San Antonio and Laredo, respectively, and are surrounded on four sides by those cities. At Fort Sam Houston, notwithstanding the numerous cases of yellow fever in San Antonio, but one case of this disease was contracted, this being before the quarantine, the patient having taken to his bed the day following. In Laredo, with its 1,078 cases, there were but five cases in the post, and in each instance the soldier had visited an infected house without the head net, gauntlets, and leggings prescribed by order. No secondary cases developed in either post.

On the termination of the Texas epidemic the acting chief surgeon of that department submitted a report from which the following extract is taken:

> The posts in the department are practically safe until next spring, when danger is to be apprehended from recurrence at Laredo and San Antonio, and from new invasion at Forts Brown, Ringgold, and Eagle Pass. Mexico is undoubtedly widely infected, and, as far as can be learned, proper methods are not being taken to control the disease there.

New railroads, which are expected to be completed into Brownsville, Tex., early next spring, will place Forts Brown and Ringgold in direct railroad communication with Tampico and Linares, both badly infected points in Mexico. The situation would seem to demand that steps be taken for an international arrangement to protect this country now seriously threatened from Mexico.

All the posts in this department have been thoroughly screened, and at each one an active campaign has been instituted to leave no place where it would be possible for mosquitoes to breed.

In March, 1904, in order that a timely and united effort might be made for the destruction of mosquitoes at all Texas posts, an additional circular was published as follows:

CIRCULAR.] HEADQUARTERS DEPARTMENT OF TEXAS,
San Antonio, Tex., March 24, 1904.

Upon recommendation of the chief surgeon of the department, the following is published for the information and guidance of all concerned:

Each householder, organization commander, and responsible officer will be held strictly accountable for any mosquito-breeding places found on the premises under his charge and for any violation of these rules.

Yellow fever and malarial fever are conveyed always and only by the bite of the mosquito. The mosquitoes found about a house are pretty sure to have been bred on the premises.

Mosquitoes breed only in standing water, the smallest collection being sufficient for the purpose. The eggs, laid on the surface of the water, hatch out the larvæ or "wigglers" in about twenty-four hours, and these develop into pupæ in five or six days, and in a day or two more into the full-fledged mosquito, the entire process from egg to mosquito requiring only a week or ten days.

The wigglers come to the surface of the water to breathe every few minutes, but if the surface of the water is covered with a film of petroleum, they are unable to breathe through it, and are killed, hence the following rules:

1. Examine every part of your premises for standing water at least twice a week, and get rid of it as far as possible. Pay especial attention to leaking hydrants, ice-box overflows, watering troughs, fire buckets, old barrels, cellars, unused water-closets, or anything capable of holding water.

2. Empty and dry in the sun, at least twice a week, all water receptacles which are indispensable, or pour upon the surface of the water petroleum or kerosene, two tablespoonfuls to each 15 square feet of surface.

3. Report, at least twice a week, to the police officer or a medical officer, any stagnant water on your premises or in your neighborhood, which you can not remedy yourself, until the nuisance is abated.

4. Sleep under a mosquito net, whether day or night, and remember that a net with holes or one improperly tucked in is worse than none at all.

5. Mosquitoes, which otherwise might be blown away by the winds, are sheltered by vines, long grass, and weeds, which should be dispensed with.

6. Read over these rules at least twice a week and see if you have neglected something that should have been done.

By order of Colonel Hughes:

WALTER L. FINLEY,
Major, Assistant Adjutant-General, Adjutant-General.

Returning to discuss the 5 cases of yellow fever which were treated at Fort McIntosh, a brief history of each is here given:

Yellow fever cases among soldiers, violators of standing quarantine rules.

Name.	Rank.	Company.	Regiment.	Age.	Nativity.	Date of attack.	Diagnosis.	Jaundice.
T. O'C	Private	F	Twenty-sixth	23	Pa	1903. Oct. 27	Yellow fever	Intense, deep.
O. A. O	Artificer	E	do	26	Minn	do	do	No jaundice.
J. H. P	Private	E	do	23	Ill	Nov. 3	do	do
D. L. D	do	F	do	30	Mass	Nov. 9	do	Moderate.
J. H. O'B.	do	F	do	28	Conn	do	do	No jaundice.

Yellow fever cases among soldiers, violators of standing quarantine rules—Continued.

Name.	Type.	Recovery.	Duration of fever.	Date of discharge.
			Days.	
T. O'C....	Intense infection; urine solid with albumin; bile stain granular casts; one convulsion.	1	13	Nov. 30, 1903.
O. A. O...	Moderate infection; small deposit of albumin	1	7	Nov. 15, 1903.
J. H. P...	Slight infection; trace of albumin	1	5	do.
D. L. D...	Severe infection; 80 per cent albumin; bile stain granular casts.	1	8	do.
J. H. O'B.	Very mild infection; faint trace of albumin	1	4	do.

No hemorrhages. All alcoholic except O. A. O.

Doctor Ames, who treated these cases, permits his patients no food until six hours after the temperature is normal, when he considers convalescence established and allows small quantities of iced milk. In a long case, after the sixth day, provided temperature is on the decline or the patient complains of weakness, 15 to 30 c.c. of iced champagne is given every two hours, for its action as a food and stimulant. Oil of turpentine 0.3 c.c. is prescribed in capsules every two hours from the very beginning of the attack until four days after convalescence. The oil is placed in capsules, drop by drop, at the time of administration. Doctor Ames believes turpentine a specific in yellow fever, it acting both as a strong diuretic and a powerful hemostatic, by its latter properties preventing the oozing of blood from the internal organs and mucous surfaces.

In February, 1904, at my request, Col. W. C. Gorgas, assistant surgeon-general, U. S. Army, prepared a paper entitled "A few general directions with regard to destroying mosquitoes, particularly the yellow-fever mosquito," 10,500 copies of which were printed later on authority of Congress. The directions were expressed in simple, nontechnical language, as the pamphlet is intended for general distribution. Colonel Gorgas has had a vast practical experience in combating yellow fever, and his publication should enable the people of Texas and of our other States on the Gulf coast to proceed intelligently for the protection of themselves and their communities, and should free their minds from the unreasoning dread of yellow fever now too frequently deeply implanted there.

At the time of the publication of my last annual report it appeared probable that recent investigation had resulted in the demonstration of the actual germ of yellow fever in the bodies of infected mosquitoes of the family stegomyia.

Immediately on issue of the bulletin on this subject First Lieut. James Carroll, assistant surgeon, U. S. Army, whose name has been associated with the history of yellow fever from the beginning of the investigation by the army board which conclusively proved the mode of its transmission, began a careful study of the results reported.

This, unfortunately, was not confirmatory, and he prepared a paper on his investigations, which was read at the Thirty-first Annual meeting of the American Public Health Association, held at Washington, D. C., October 26–30, 1903.

In this paper, which is entitled "The Etiology of Yellow Fever" (an addendum), Doctor Carroll says, in conclusion:

1. The fusiform stage of the so-called *Myxococcidium stegomyiæ* of Parker, Beyer, and Pothier (1903) is not connected in any way with the transmission of yellow fever.

2. This organism appears to be not a protozoan parasite, but a yeast fungus. In its fusiform stage, the only form in which it was constantly present, it shows the characteristic budding, staining affinities, and vacuolation or spore formation of a blastomycete, and it is found with considerable regularity in both male and female mosquitoes that have purposely been fed on over-ripe banana to which a pure culture of a wild yeast had been added in the laboratory.

3. The organism has not hitherto been found in repeated examinations of mosquitoes of the genus *Stegomyia* that have bitten yellow-fever patients in the early stages of the disease, when such insects had been fed only on blood, dry sugar, and water. This statement applies also to mosquitoes that are known to have reproduced the disease in human beings.

Doctor Carroll's findings have received general credence from the scientific world, and while very few now doubt that the mosquito is the sole agent in the transmission of yellow fever, the parasitic cause of this disease is still unknown.

DIPHTHERIA.

Twenty-six cases, equal to an admission rate of 0.38 per thousand, with no death or discharge, were recorded during this year. All cases of this disease occurred among the white troops serving in the United States.

MALARIAL FEVERS.

In the Army as a whole during the last year 13,608 cases, equivalent to a rate of 201.18 per thousand, were reported, with 5 discharges and 34 deaths, equal to 0.07 and 0.50 per thousand of strength respectively, which compares favorably with the prevalence of malarial fevers in 1902, when 21,996, or 272.30 cases per thousand, were admitted to sick report, with a death rate of 0.45 per thousand of strength.

The following shows the character of these diseases:

Intermittents: 11,230 cases, equivalent to 166.02 per thousand men, with no death and no discharge for disability.

Remittents or continued: 2,066 cases, equal to 30.54 per thousand of strength, with 4 deaths, and no discharge for disability.

Pernicious fevers: 41 cases, equivalent to 0.61 per thousand of strength, with 28 deaths and no discharge.

Malarial cachexia: 271 cases, equal to 4.01 per thousand men, with 5 discharges and 2 deaths.

The following table shows the ratios of admission per thousand strength for malarial disease in the different countries:

	Pacific Islands and China.			Cuba and Porto Rico.			United States.		
	Admissions.	Discharges.	Deaths.	Admissions.	Discharges.	Deaths.	Admissions.	Discharges.	Deaths.
Intermittents	377.61	....	....	60.86	....	....	50.66	....	....
Remittents or continued	72.17	....	0.17	10.89	....	....	7.81	....	....
Pernicious	1.55	....	1.09	.64	....	....	.07	....	0.05
Cachexia	7.26	....	.08	.64	....	....	2.30	0.12	....

Based on our knowledge of the means by which these diseases are propagated by infected mosquitoes, practical application of the method of prevention of malarial diseases has been continued at the different posts during the past calendar year. Mosquito bars are in general use.

especially at hospitals, and the use of petroleum to prevent the breeding of mosquitoes has been carried on with varying degrees of success at a number of stations during the year.

At Fort Sam Houston, Tex., in addition to the antimosquito work, which has been unremittingly carried on, all malarial cases, however mild, are treated in hospital under a mosquito net, thus eliminating a source of infection to others of the command. After admission this class of cases is retained in hospital until the parasites have disappeared from the peripheral blood and all symptoms have ceased. When a patient recently suffering from malaria leaves hospital his name is entered on the "malarial register" and he is instructed to report at sick call once a week thereafter until released by the medical officer. On the day he reports his blood is examined and he is given one gram of quinine. If organisms are found he is directed to report again the next day for a second dose. This course is repeated once a week for two months, or longer if necessary.

In the Philippine Islands measures relative to the eradication of malaria were diligently practiced at all military stations. At frequent intervals the breeding places of mosquitoes have been carefully sought and properly attended to as the local conditions warranted. The requirements as to use of mosquito bars in barracks, hospitals, quarters, and guardhouses, have been rigidly enforced, besides the periodical administration of quinine to all malarial cases showing a tendency to recurrence. Special care has been given to the protection of malarial patients so that the mosquitoes of the different localities might not become infected, and thus be enabled to propagate the disease from the sick to the well. As a result of the combined efforts the rate of admission to sick report for malarial affections in the Philippine Islands during the calendar year 1903 was a vast improvement over the rates of preceding years, and it only remains for the municipal authorities of the many native towns in which troops are stationed to recognize the necessity of observing sanitary measures along these lines, and a further diminution in this class of disease will be noted.

TYPHOID FEVER.

The past calendar year showed an incidence rate for typhoid fever of 5.14 per thousand and a death rate of 0.44; 348 cases of this disease were treated and 30 deaths are ascribed to it. Prior to the Spanish-American war, decade 1888 to 1897, the mean annual admission rate was 4.95 and the death rate 0.55. In the decade 1892 to 1901, which includes the war period, 7,582 soldiers were admitted to hospitals suffering from enteric, of whom 836 died; thus the admission rate was 18.40 per thousand and the death rate 2.07. Since the war the incidence and death rates per thousand of mean strength have been as follows: 1899, 20.69 and 2.44; 1900, 9.74 and 1.63; 1901, 6.42 and 0.84; 1902, 6.99 and 0.85.

It may be seen, therefore, that during the past year both the incidence rate and the death rate for the whole Army were comparatively low, the former but little higher and the latter lower than even for the decade 1888 to 1897, during which time a large part of the troops were distributed in western posts, where liability to typhoid infection was small.

The character of the measures taken to prevent the disease may be judged from the following circular:

CIRCULAR }
No. 62. }

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, December 24, 1902.

By direction of the Secretary of War, the following memorandum, prepared by the Surgeon-General of the Army, upon the subject of typhoid fever contagion and the means of preventing it is published to the Army for the information and guidance of all concerned:

Personal hygiene for the prevention of typhoid fever in camps.—Typhoid fever is a very common disease in the United States and is particularly liable to spread among soldiers in camp and garrison because of the intimate association of men gathered together in barracks and tents. It is conveyed by the fecal and urinary discharges of persons suffering from the disease.

It often happens that a soldier suffering from typhoid fever remains on duty for several days before he seeks relief at the hospital. Furthermore, very mild cases occur which are never treated as such.

The disease is not contagious in the sense that the mere presence of a case determines contagion, as in smallpox or measles, but particles of human excrement containing the germ of the disease may in many ways be transferred from the sick to the well and cause typhoid fever. In this sense it is contagious.

That an infected water supply is a common cause of the disease is well known, but it is likely that in camp life a greater number of cases occur from direct contagion, man to man, than from infected drinking water. It is not probable that several hundred men can be assembled in a camp without at least one case of typhoid fever being introduced from outside and this case may not be recognized until infection of others has taken place. Therefore, the immediate destruction or disinfection of the discharges of *all* persons in camps without sewers is an imperative necessity.

The fever may be spread by flies from infected excrement settling on articles of food in company kitchens and in other ways; also, by dust containing dried particles of infected matter.

Therefore, willful or careless soiling of the neighboring ground by excrement or urine should be counted a serious military offense, as it is quite possible for a single instance of this kind to cause the sickness or death of many comrades.

The disease can be easily transmitted by dirty hands, soiled clothes, filthy playing cards, and numerous other ways by which very minute particles of human ordure may obtain entrance to the mouth.

Therefore the personal cleanliness of men in camp should be a matter of gravest concern to officers and noncommissioned officers exercising authority, and every soldier should be instructed in the very simple principles governing infection by personal uncleanliness. The weekly bath should be insisted on and facilities furnished for it. Daily bathing should be encouraged whenever possible.

Washing the hands with soap and water, and the use of individual nail brushes after going to the sinks and before meals, is a necessity in camp life if danger to health is to be avoided.

The use of toilet paper is essential to personal cleanliness, and each soldier should at all times have a supply with him.

Soldiers using underclothing, towels, pipes, nail brushes, etc., which have been used by other men, do so at the risk of infection. Clothing and bedding soiled by discharges from the body should instantly be washed or, if woolen, disinfected.

Complete protection of food from contamination by flies, dust, and promiscuous handling should be had at all costs.

When a case of typhoid fever is removed from a tent the site, the canvas, and the articles within the tent should be disinfected.

With simple precautions cases of typhoid fever may be and are handled by nurses and attendants in hospitals without danger to themselves.

Without such precautions on the part of *all* men, typhoid fever, once introduced into camp, will undoubtedly spread.

By command of Lieutenant-General Miles:

H. C. CORBIN,
Adjutant-General, Major-General, U. S. Army.

It is gratifying to be able to report an increasing appreciation among line officers generally of the necessity for careful sanitary administration as a means of protecting the Army against this formidable disease.

Statistics for the year by arms of service show the engineers to have had the highest admission rate, 12.03 per thousand, followed by the cavalry, 8.68, and the field artillery, 6.51. The Medical Department and hospital corps together had an admission rate of 5.64, which is slightly above the rate for the whole Army. As this department and corps are stationed wherever the Army may be, thus serving under the same conditions as it does, and in addition, from the nature of their duties, are especially exposed to contact infection from this disease, the danger of which has attracted considerable attention of late, their comparatively low rate must be accepted as satisfactory and as an indication that the methods taken to protect them from infection in hospitals have been given careful attention.

By races the whites showed an admission rate of 5.66 per thousand, death rate 0.47; colored, admission rate 1.57, death rate 0.31 and Filipinos, admission rate 1.04, death rate 0.21. All the colored troops have had home stations during the year where, as will be seen, the admission rate for typhoid was much higher than for troops serving outside of the United States, which would make this difference between them and the whites even more remarkable if it were not for the fact that the distribution of the disease among the stations in the United States is by no means an equal one, and the colored troops have chanced to garrison posts where the liability to typhoid infection is not great. The very low admission rate of the Philippine Scouts is notable, as it always has been since these organizations were formed.

In the United States, with a mean strength of 42,264, 246 cases of typhoid have been treated during the year, of which 12 have died, giving an admission rate of 5.82 per thousand and a death rate of 0.28. Cuba and Porto Rico together, mean strength 1,561, had 3 admissions and no death, admission rate 1.92 per thousand. The Philippine Islands, mean strength 23,460, showed 87 admissions, and 16 deaths or rates per thousand of 6.71 and 0.68, respectively. Pekin, mean strength 145, had 11 admissions, rate per thousand 78.86, and deaths 1, rate 6.90. Hawaii, mean strength 213, gave 1 case and 1 death, admission and death rates per thousand 4.69.

The American troops serving in the Philippines with a mean strength of 18,671, had 82 typhoid cases and 15 deaths, equivalent to an admission rate of 4.66 and a death rate of 0.80 per thousand of strength, while the Filipinos with a mean strength of 4,789 had 5 admissions and 1 death or rates of 1.04 and 0.21 per thousand, respectively.

The records of the past year afford further proof that whatever faults the Philippine Islands may possess as a station for troops, from the standpoint of health, liability to typhoid infection is not one of them. Why this should be so is not so evident. Generally armies in tropical countries certainly do not enjoy immunity from typhoid fever; taking India for example, in 1901, the best year since 1887, the rates per thousand for European troops were 12.8 admissions and 3.32 deaths. Granting that the habits of the natives of India are such as to pollute the sources of their water supply, it is inconceivable that this is done to a greater extent than in the Philippines, where the large majority of wells and streams are grossly contaminated. This is apparent not only on inspection and from the results of bacteriological and chemical examinations, but from the numerous cases of dysentery and cholera which follow the use of unsterilized water. Yet under field-service conditions, when the use of sterilized water only can not always be enforced, typhoid rates do not markedly increase.

It has been suggested that cases diagnosed as malarial fever are, in reality, typhoid, and the higher death rate in the Philippines might be held to lend some color to such an assumption; but, as a matter of fact, it is possible to put into general use there the usual scientific methods of differentiation between these two diseases, and this is generally done; moreover the higher death rate of typhoid may be more easily explained by the reduced resisting power of men serving in a tropical climate and the increased difficulties of treatment of this disease in which good results are notoriously dependent upon the best surroundings.

The reason for the infrequent appearance of typhoid fever among troops in the Philippines is undoubtedly due in a large measure to its rarity in natives. The cause of its limited spread among the inhabitants, carried as it is in the same way as cholera, which runs like wildfire, can only be vaguely ascribed to influences inimical to the long existence of the bacillus of typhoid fever.

Troops in Peking suffered severely from enteric during the year. This garrison, the only station in China, had a small force of but 145 men, among whom 11 had typhoid fever and 1 died, giving an admission rate of 78.86 per thousand mean strength and a death rate of 6.90. Under date of December 14, 1903, Lieut. Paul C. Hutton, assistant surgeon, U. S. Army, surgeon at Peking, reported as follows concerning the outbreak of typhoid fever at that post:

> Before my arrival, October 20, 7 cases of typhoid fever had developed and were in the post hospital. These 7 cases reported sick on the following dates: September 21, October 1, 3, 13, 15, 16, and 20. Two cases developed October 26, 1 November 10, and 1 November 14. An investigation was begun immediately after arrival to ascertain the cause of the outbreak. It was found that 6 of the first 7 attacked had been drinking water from Chinese surface wells contrary to existing orders while out of the post, or else had been in the habit of eating uncooked vegetables, such as lettuce, radishes, etc., also against orders. When it is understood that the ordinary Chinese wells are sunk in the black, damp earth, which is saturated with organic matter of all kinds, and that these wells are not always protected by curbing, it is easy to understand how freely the germs of typhoid and of other diseases contaminate the water, on account of the Chinese custom of defecating on the ground at the most convenient point. This excrement is collected by the soil merchant and employed to fertilize the ground, and on this account the germs of typhoid are more abundant in China than in the United States. For this reason it is thought that those of the men who were guilty of eating uncooked vegetables contracted the disease therefrom.
>
> After 7 cases had occurred, I believe, though it is difficult to determine definitely, the remaining cases, except 1, contracted the disease through flies, it being impossible to entirely protect the excrement in the closets on account of the lack of a sewerage system. However, every precaution was taken to guard against the propagation of the disease by these insects, lime in large quantities and disinfectants being freely used, and at the same time all possible protection was given to food, but it is a lamentable fact that in the construction of this post that the closets of both men and officers were made to almost adjoin their respective kitchens. In a locality where there is so much disease as in Peking, this proximity of the closets to the kitchens should not be permitted to continue.
>
> In the case of Lieutenant C., who neither ate nor drank anything of a suspicious nature except cream, it is assumed that he contracted the disease from this cream which he was in the habit of using daily, it being known that the milk venders are not careful in the cleansing of their pails and pans, most of them using the surface well water for this purpose.
>
> I heard it frequently asked why, under such alarming conditions, the Chinese do not die of typhoid fever. Inquiries among the physicians here who attend the native population reveal that they suffer very largely and frequently die. That they do have this disease there is no doubt, but that they have it less frequently than Americans or Europeans would have it under similar circumstances there can be no question. By long years of contact and by immunity handed down from father to son

the Chinese seem to be able to combat more successfully the invasions of the Eberth's bacillus than it is possible for us to do.

The water supply of the post is above suspicion. All the water used for cooking and drinking purposes is distilled by the distilling plant herein located and carefully stored in large iron boilers, which are cleaned at stated intervals. I believe that we should have no epidemic of typhoid had the orders issued by the commanding officer been carefully observed.

In the United States typhoid fever was reported from 66 different hospitals, located in all parts of the country. A more striking proof of the wide distribution of this disease could hardly be given and the sanitary lesson taught is an important one, as it is apparent that this condition of affairs argues ill for the health of any troops mobilized, as they will probably bring enteric to the camps with them, and to prevent a widespread epidemic will require the best efforts of all, or a large proportion of the force will be incapacitated by typhoid fever. In a large number of the posts and camps the cases of typhoid fever were not due to conditions susceptible of remedy by the military authorities, the defective sanitation of the surrounding communities being responsible for them. Thirty-five posts had but 1 typhoid patient and only 6 stations reached double figures in the number of their cases.

Fort Leavenworth, Kans., the largest post in the United States, held the unenviable record of having been also the worst infected with typhoid fever. This is not a new condition for Fort Leavenworth, the intake for the water supply being barely 4,000 feet below the outfall for the sewage of the post, and the neighboring town of Leavenworth paying a heavy yearly toll to typhoid fever and affording numerous opportunities for infection of soldiers visiting it on pass from the garrison. The character of the post water supply may be appreciated by a study of its analyses. Dr. Edwin R. Hodge, in charge of the chemical laboratory of the Surgeon-General's Office, reported as follows under date of April 24, 1903:

Analysis stated in parts per million.

Chlorine	13.50
Nitrites	None.
Nitrogen as nitrates	2.040
Free ammonia	0.2640
Albuminoid ammonia	0.2593
Oxygen used	3.9912
Total solids	341.50
Loss on incineration	84.0

The water was taken from the tap at the post hospital. It was odorless, colorless, faintly alkaline, but possessed an opalescent cloudiness due to suspended matter. This was removable by simple filtration.

There was much charring and blackening of the residue on its incineration. This fact taken with the above figures shows this water to be highly charged with organic matter. The steps of the analysis indicated further that it was not wholly in a fresh state.

The mineral residue was otherwise made up of the sulphates of magnesia and lime and the carbonates of those metals, with decided traces of iron and alumina.

The water is somewhat hard and is as follows:

	Per gallon.
Total hardness	18.10
Permanent hardness	9.02
Temporary hardness	9.08

First Lieut. James Carroll, assistant surgeon, U. S. Army, examined the water bacteriologically at the same time and reported:

Sample No. 1, taken from the river 50 yards below the outlet of the main sewer: Average count of colonies, 1,476 per c. c.

Sample No. 2, taken at intake, 4,000 feet below the outlet of the main sewer: Average count of colonies, 3,177 per c. c.

Sample No. 3, taken from the last settling reservoir, whence the water is pumped through the system: Average count of colonies, 1,133 per c. c.

Sample No. 4, taken from tap in the hospital after allowing the water to run 30 minutes: Average count of colonies, 9,756 per c. c.

Condition when received.—No. 1, moderately turbid, slight deposit of mud at bottom of bottle.

No. 2, slightly turbid, a similar deposit at bottom of bottle.

No. 3, clear, a very fine deposit, just perceptible.

No. 4, clear, a very fine deposit, just perceptible.

To determine the presence or absence of gas-producing bacteria, four sets of ten glucose bouillon fermentation tubes were inoculated, each set received 1 c. c. in each tube of the water from a single sample. After incubation for three days the result was as follows:

Sample.	Gas.									
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
	Per ct.	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
No. 1	35	32	40	30	20	28	30	12	5	35
No. 2	45	18	24	28	15	35	5	30	15	10
No. 3	35	20	12	25	25	....	....	....	....	25
No. 4	22	12	22	40	20	25	....	....	....	....

From this it will be seen that the bacteria content of the water at the intake (No. 2) is practically the same as at a point 50 yards below the outlet of the main sewer (No. 1). The last settling reservoir and the tap in the hospital give the same result, viz, 60 per cent of the tubes give evidence of the presence of gas producing bacteria, showing a diminution in their number of about 40 per cent. The amount of gas obtained in the larger number of the tubes of each set that contained it is indicative of the presence of the colon bacillus, and this was found to be the prevailing organism in the plate cultures prepared from some of the tubes in sets 1, 2, and 4. From set 3 an organism was obtained which appeared to belong to an intermediate type between the colon and hog cholera groups. Both tubes of set 4 (tap water), from which plate cultures were prepared, yielded the colon bacillus. The evidence appears to be conclusive that the presence of the colon bacillus in the tap water is the direct result of contamination by sewage. No importance can be attached to the numerical count of colonies on account of the time consumed in transit.

The officers concerned in protecting the health of the troops at Fort Leavenworth have not been blind to the bad conditions existing at that post. On the contrary, Lieut. Col. J. Van R. Hoff, deputy surgeon-general, U. S. Army, the post surgeon, has called attention to them in numerous reports and the post commander has attempted to enforce in the command the exclusive use of boiled water for drinking purposes. Doubtless some cases of typhoid fever have been prevented by this sterilization of the drinking water, but the year's records show that it can not be depended on for satisfactory results. Neither this method nor distillation of drinking water, which has been proposed for Fort Leavenworth, meet the requirements of sanitation. A safe water supply should be provided for all purposes, and until this is done, abnormally high rates for typhoid may be expected.

In the latter part of 1902 a board of officers was convened to report upon a water supply and a sewerage system for Fort Leavenworth. Lieutenant-Colonel Hoff reported as follows on a proposed sewage purification plant designed by the Municipal Engineering Company of New York, which this board had under consideration:

> As I understand it, the problem that the proposed installation is to solve is a sewage affluent which will not affect injuriously the quality of the water supply of this post at the intake 4,000 feet downstream. The conditions obtaining here seem to confine the means to this end to some form of sewage filtration. If I have correctly read the plans, the engineering company proposes to install: First, a crematory for the destruction of the coarsest parts of the sewage and other wastes; second, a septic tank for bacteriological saturation (putrefaction); third, bacteria base for purification.
>
> This scheme seems to embrace the latest features of these forms of sewage disposal and should, if successful, thoroughly antisepticise the sewage.
>
> I understand from Mr. Smith, the engineer of the company, that all the features of the present plan have never been put into actual use by his company in the proposed combination, though, as we know, each has repeatedly demonstrated its value in sewage disposal. In this sense the undertaking must be regarded as an experiment, the value of which can be determined only by the result. I would therefore respectfully suggest that, if the plans of the Municipal Engineering Company be adopted, this company be required to superintend the construction of the plant and to guarantee its efficiency for a period of years. I have no doubt as to the correctness of the principles upon which the plans are based, but I am not prepared to express an opinion as to their application. The responsibility of this should rest upon the municipal company, not for a month or two, but for several years.
>
> Of course the most radical fault of the whole system is the fact that the outfall of the sewer system is so short a distance above the intake of the water supply.

In accordance with the recommendations of the board, a contract was entered into with this company. At last report the sewage-disposal plant had not been put into operation. An opinion can not be expressed, therefore, as to its efficiency.

A number of plans for obtaining better water have received consideration. Among these were wells in series, which have been very satisfactory at Fort Riley, and which apparently should be equally so here; a post waterworks and purchase from the water company at Fort Leavenworth, Kans. The last has been selected; negotiations are now in progress with a view to determining the price to be paid the company for water, and it is hoped that the important sanitary questions in connection with the water supply are now on the eve of settlement in a satisfactory manner. It is but just, as the affair now stands, that an opportunity be given for a trial of the sewage-disposal system and the new water supply; but if it is found that existing conditions are not remedied and that this post, important not only from the size of its garrison but as the home of several service schools, is still a prey to typhoid fever, they can not be too quickly condemned and other and more effective measures adopted.

Fort Niagara, New York, is another post which has contaminated water that requires sterilization before use for drinking purposes. Capt. Ira A. Shimer, assistant surgeon, U. S. Army, surgeon, under date of May 15, 1904, made the following interesting report on typhoid fever at that station:

> On my arrival at Fort Niagara for duty as surgeon (in January, 1902) I made an examination of the sanitary conditions in and surrounding the post, and upon investigation of the water supply I found that the general supply for all purposes was pumped from the Niagara River. Owing to the large population resident along this river, I became suspicious of its potability, but upon examination of the hospital records, and inquiry among resident physicians, I was satisfied that such cases of typhoid fever as had occurred in the post and vicinity had had their sources of infection in other sections.
>
> The chemical analysis of the water as taken from the post supply was made by Dr. W. M. Mew, of the laboratory of the Surgeon-General's Office, on August 3, 1896, with the following results expressed in parts per 100,000: Chlorine, 0.7; nitrites,

none; nitrates, trace; free ammonia, 0.004; albuminoid ammonia, 0.01; total solids, 14; grams on ignition, 4.

Doctor Mew expressed the opinion at that time that the water "may be regarded as representing a river water of good quality."

Cases of typhoid fever were treated in this hospital as follows:

Case 2701, admitted May 27, 1902; origin, Buffalo, N. Y.

Case 2837, admitted December 4, 1902; origin unknown, probably local.

Case 2868, treated in quarters, beginning January 25, 1903.

On the confirmation of the diagnosis in case 2837 recommendation was made to the adjutant, Fort Niagara, New York, that all members of this command be instructed that when absent from this post, and especially when visiting Buffalo, Niagara Falls, or Lewiston, N. Y. (typhoid fever being endemic in those cities), they use the utmost caution that they do not drink either water or milk that had not been previously boiled, and orders were issued to accord with the recommendation. On the appearance of case 2868 I became again suspicious of the integrity of the water as supplied to the post, and on January 28, 1903, a sample was secured by allowing the water to flow freely in the cellar of the steward's quarters for over an hour, when the specimen was taken, sealed, and forwarded to the curator of Army Medical Museum, Washington, D. C., for bacteriological examination. Under date of February 10, 1903, Dr. James Carroll furnished the following report thereon:

"* * * baccillus cloacæ was obtained. Hanging drop preparations from four of the original fermentation tubes revealed the presence of a streptococcus. Subsequent cultivations upon the various culture media and usual bacteriological tests confirmed the identity of the colon bacilli.

"The presence of the colon bacillus alone in such a large proportion of the tubes is sufficient ground for regarding the water with grave suspicion. Since the colon bacillus, bacillus cloacæ, and the streptococcus are all acknowledged sewage bacteria it is believed that this water should be condemned as unfit for use and liable to produce disease."

On February 20, 1903, the adjutant, Fort Niagara, N. Y., was furnished with a copy of this report with the recommendations: 1. That Waterhouse-Forbes sterilizers be supplied by the quartermaster's department and that all water used on the reservation for culinary or drinking purposes be required to be sterilized. 2. That as soon as weather conditions permit, artesian or other wells be constructed to supply a safe and suitable water for this station.

On April 20, the delivery of sterilized water was begun, all organizations and families on the reservation being supplied, and the use thereof enjoined upon all persons in accordance with the above recommendation, and following the use of sterilized water was noticed an immediate and total cessation of the cases of minor diarrhea that had been appearing at sick call for treatment, leaving no doubt in my mind that if the Niagara River water was not in itself a source of infection of typhoid fever it was productive of an inflammatory condition of the intestinal tract that formed an ideal lodging place for the bacillus typhosus.

During the month of April, 1903, a bricked well was constructed near the quartermaster's warehouses, and upon work being stopped was covered over.

On July 14, 1903, case 2946 developed, but as the patient had joined his company but three days previously from Fort Slocum, that post was considered the source of infection.

The cases included in the epidemic which is the cause of this report were admitted to this hospital as follows:

Case 3004, L. W. B., private, C, Ninth Infantry, admitted December 26, 1903.

Case 3011, D. S., corporal, K, Eighth Infantry, admitted January 6, 1904.

Case 3012, C. B., private, K, Eighth Infantry, admitted January 6, 1904.

Case 3014, C. H. R., private, K, Eighth Infantry, admitted January 11, 1904.

Case 3015, C. F. B., private, K, Eighth Infantry, admitted January 13, 1904.

Case 3016, T. M., sergeant, K, Eighth Infantry, admitted January 18, 1904.

Case 3017, J. E. H., private, K, Eighth Infantry, admitted January 21, 1904.

Case 3018, C. A. K., private, K, Eighth Infantry, admitted February 5, 1904.

Having learned that private B., C, Ninth Infantry, was in the habit of spending his evenings in the barracks occupied by Company K of the Eighth Infantry, and the fact that he with members of that company alone were infected, led me to make a thorough inspection of those barracks and the conditions existing there. It was found that at this time Company K was numerically about 30 per cent stronger than the other companies stationed at this post (Companies A, C, and D, Ninth Infantry) owing to the recent acquisition of a number of recruits by Company K, and to the absence of details from the several companies of the Ninth Infantry on guard duty at Allegheny Arsenal, at that time a subpost of Fort Niagara. As the same amount of water was delivered to each of the four companies, the augmented strength of

Company K caused the supply at those barracks to become exhausted during the evenings, with the result that the men were obliged to resort to the faucets supplying the river water, owing to the noncommissioned officers of that company failing to have the containers refilled. During this time the Niagara River was filled with floating ice, some of it coming from the upper Niagara River, Lake Erie, and their tributaries, and no doubt containing an unusual amount of the sewage of Buffalo and Niagara Falls, which being ground up by its passage over the Niagara Falls and through the Niagara Gorge, melted rapidly in the swift current of the lower river, fairly loading the water with the disease-producing bacteria present in sewage.

At this time the members of Company K were in the habit of drinking a large quantity of sweet cider, a barrel of which was kept on tap in their barracks almost constantly, causing a number of cases of slight diarrhea, and which was no doubt a factor in the predisposition to infection caused by the irritant action of the river water.

Under date of January 11, 1904, recommendation was made to the commanding officer, Fort Niagara, N. Y., that steps be taken to insure a constant and sufficient supply of sterilized water, and that all persons belonging to the command be impressed with the necessity for the use of the sterilized water and no other. This was done, and no case developed beyond the incubation period from that time.

Of the eight cases included in this epidemic, case 3017 alone was of a mild, uncomplicated form, the febrile condition disappearing on the eleventh day after admission. Cases 3015 and 3016 ran a normal course. Cases 3004, 3011, 3012, and 3014 were of a severe, protracted type in which the febrile condition lasted over forty days; while case 3018 was of an extremely severe type complicated with hyperpyrexia, lasting for nine days, meteorism for six days, extravasation of blood from all mucous membranes for eight days, purpura hemorrhagica, intestinal hemorrhage necessitating transfusion, phlebitis of the dorsal veins of the penis, which, notwithstanding incision of the dorsum, involved the loss of the anterior third of the penis, a portion of which was rebuilt by skin grafting covering a period of twenty days. This case also developed a post-typhoid neuritis of the left sciatic nerve with a slight paralysis of the left leg which was improved by galvanism.

On admission all of these cases gave positive results with the Ehrlich diazo-reaction, had a markedly dicrotic pulse, high temperature, and after periods ranging from three to six days developed the characteristic rose spots. The Widal reaction was applied to cases 3004, 3011, and 3012, with positive results. Cases 3011, 3012, and 3014 showed marked bronchial symptoms on admission. There was no mortality during this epidemic.

At the time of rendering this report the system of supplying sterilized water in cans is still in vogue at this post.

During the entire period of almost five months covered by this epidemic the utmost care was exerted that all articles used on or about the patients were thoroughly disinfected either by boiling or submersion for twelve hours in a one-half per cent solution of tricresol; the patients were isolated and all the dejecta disinfected with crude carbolic acid, and the necessity for extreme care and watchfulness was made plain to all persons whose duties brought them in contact with the sick or articles used in their care, with the result that there was no infection from the patients in hospital. At the conclusion of the outbreak the ward occupied by the cases was thoroughly cleansed, the wax coating removed from the floor and a new one applied, the beds, furniture, and woodwork washed with a solution of carbolic acid, and all the bedding disinfected by formaldehyde.

Before concluding this report it is my desire to call attention (of the chief surgeon of this department and of the Surgeon-General) to the conduct of this detachment of the hospital corps during the epidemic. Although undermanned by one of the detachment being sick in hospital they at all times performed each and every duty incident to the proper care of the sick and the administration of the hospital without regard to hours or personal inclinations, and to their devotion to duty can be ascribed a large measure of the results achieved. Some idea of the work performed by them may be obtained from the fact that during the height of the epidemic no less than 534 baths were given, and the additional labor and care rendered necessary by a temperature varying from zero to 14° below.

As drainage into the Niagara River must increase greatly it is improbable that this stream can ever again be depended upon for a safe water supply, and driven wells are now being considered as a source for the post water supply.

Fort Monroe, Va., had 11 cases of typhoid fever during the year. Possible sources of infection of that command, as stated by Maj. R. W.

Johnson, surgeon, U. S. Army, were from the adjoining town of Phoebus, by drinking well water or by eating oysters from Mill Creek, which receives the town sewage, or by drinking water derived from the Newport News city mains in the post, which is the common practice of some of the men, as they dislike the taste of distilled water, which, on account of the dangerous quality of the garrison water supply, is furnished the entire command. Fort Monroe has had a bad water supply for some years and in consequence has suffered severely from typhoid fever. At the time of the Spanish-American war a distilling plant was put in operation for the general hospital which was established there at that time, and since the breaking up of the hospital the post has used the plant for its drinking-water supply, with the result that there has been some lessening in enteric, although, as stated by the surgeon, the usual difficulty of confining men to sterile water when another more palatable is at hand has been experienced.

The subject of a pure-water supply for Fort Monroe has received consideration during the year. The old distilling plant having proved too small for the needs of the garrison, the mechanical system of filtration for all water was recommended by this office, but it was decided to install a larger distilling plant.

At Camp George H. Thomas, Georgia, 15 cases of typhoid fever appeared in the command. A number of the patients undoubtedly became infected while absent from the station. The rifle range for Camp Thomas is at Waco, Ga., and the detail of troops at this range has always been prolific of typhoid cases, partly because of contaminated water there, and partly on account of the bad water obtained while on the march going and returning. Contaminated water is obtained near Camp Thomas by men on pass, and while the drinking water is from an artesian well and is excellent, the surgeon, Maj. Henry C. Fisher, surgeon, U. S. Army, believes some cases were due to the water of Chickamauga Creek, which is used for bathing, dishwashing, etc. The last source of infection will be done away with on the occupation of the new post, probably in the early part of the coming year.

The maneuver camps of the year have been exceptionally free from typhoid fever. At the combined army and navy maneuvers, Portland Harbor, Maine, not a single case appeared, although some of the troops were in camp for over four months. The joint maneuvers at West Point, Ky., were equally fortunate, but a few cases of enteric occurred at similar maneuvers at Fort Riley, Kans.

Return of the Sixth Battery, Field Artillery, which contained nearly all the sufferers, to quarters in the post at Fort Riley, in accordance with the recommendation of the chief surgeon of the Provisional Division, Lieut. Col. John Van R. Hoff, deputy surgeon-general, U. S. Army, and careful disinfection prevented further extension of the disease. The cause of this outbreak was carefully studied by a board of medical officers, consisting of Lieut. Col. E. F. Gardner, deputy surgeon-general, U. S. Army, and Maj. Paul Shillock, surgeon, U. S. Army. Maj. E. B. Frick, surgeon, U. S. Army, who was detailed on the board in the order convening it, was prevented by other duties from attending its sessions, and therefore took no part in the proceedings. The board's report was in part as follows:

> The board having secured the histories of and carefully examined the suspected cases, reached the conclusion that there was sufficient probability of the disease being

typhoid fever to make immediate action necessary, and verbal recommendation was therefore made to the division surgeon that the Sixth Battery, Field Artillery, in which most of the cases originated, be removed at once from the camp and returned to its barracks at Fort Riley.

The board then proceeded to a further investigation of the cases in the Sixth Battery, Field Artillery, with a view to ascertaining the probable source of origin of the disease. The patients were questioned as to their drinking water, other than that from the post supply, as to their use of milk and where obtained, as to articles of food or drink which they may have obtained in Junction City or from neighboring ranches, as to water drank on practice marches in the vicinity of the post, and as to whether those attacked were intimate companions and therefore likely to have been subjected to the same causes. No positive definite relation between the disease and any of these possible causes could be discovered, except, perhaps, the drinking of water on practice marches.

Capt. G. W. Gatchell, Artillery Corps, U. S. Army, commanding the battery, was also examined by the board and was unable to furnish any information upon which a legitimate conclusion could be reached, but stated that the men may have drank water from wells, etc., on practice and road marches.

The barracks occupied by the battery were carefully examined, with negative result. The board finds that the men attacked lived in three different squad rooms on different floors of the barracks. In each squad room, however, the beds of the men attacked were not far apart. It would seem that the post water supply or other post conditions can not be at fault, or the disease would not be confined to this battery. The barracks occupied by this battery are located between two others, in all respects similarly constructed, on the east side of the artillery parade.

There were eight suspected cases in this battery which were investigated by the board. The following points are to be noted in connection with these cases:

1. The improbability of the cause existing within the post, as the cases, with one exception, are confined to one organization, which obtains its milk and other supplies from a source common to all.

2. That the disease did not originate in the maneuver camp, as some of the cases occurred before and others only a few days after the camp was formed.

3. That this battery had recently made two practice marches without other organizations, viz: One to Wakefield, Kans., September 17, a distance of 16 miles, where they remained over night and on which occasion water was drunk from wells on the road and from the tank at Wakefield. Another march, returning the same day, was made to Ogden, Kans., about 6 miles, about October 5 or 6, but on this occasion little water was drunk except that taken from the post. The first cases appeared only two or three days after this latter march, and it is extremely improbable that the disease was then contracted.

4. That typhoid fever has been endemic in the Kaw Valley since the June floods.

From the history, symptoms, and course of the disease, and notwithstanding the negative result of the blood and urine examinations, the board is constrained to believe that cases 1 and 2 are typhoid fever, probably contracted by drinking water on the Wakefield march, September 17, giving a period of incubation of about nineteen or twenty days. Case No. 3 is one that has been considered doubtful, but it is probably typhoid, although the urine and blood examinations are negative. Cases Nos. 4, 5, 6, and 7 give positive reactions in both examinations, and their general histories also indicate typhoid. In regard to the source of origin of the disease in these cases, and also of case 3, it may be noted that they first began to feel sick on October 15, 16, 14, 12, and 10, respectively. Cases 4 and 7 were not on the march to Wakefield, and if the others be attributed to drinking water on that march it makes the period of incubation about one month, which is believed to be rather long.

It may be noted that case 2 was on kitchen police the day he was taken sick, October 7; also the proximity of the bunks of the later cases to those of the earlier ones. As has been stated in the histories, these cases (Nos. 1 and 2) remained in quarters two or three days after being taken sick, October 6 and 7. Whether these later cases may have been infected from one or the other of these conditions is a question that can not be positively answered, but it would seem that while this does not appear probable it is not beyond the limit of possibility.

The period of incubation would be from six to nine days if that were the case, except in case 7, in which it would be three or four days. But the date on which the sickness first appeared being taken from the patient, his memory may be at fault, especially as he is sick. A latitude of several days may well be allowed for such failure of memory. Case 8 is also a case about which there has been some doubt, but it is believed to be typhoid. The diazo and Widal reactions are negative. He occupies the squad room with case 3, but was taken sick about the same time, and was not on the march to Wakefield. In this case, too, the correctness of the information given by the patient as to first symptoms is open to much doubt, and the board is unable to reach any satisfactory conclusion in this case.

Regarding the cases in the Sixth Battery, the board has given the matter due consideration and study. It is very difficult, if not impossible, to reach conclusions in all these cases consistent with the evidence that can be at present adduced, but the foregoing embodies the opinion of the board, based on the conditions now existing and on the obtainable information. Later developments may throw more light on the source of origin of these cases and a different solution of the matter may be found.

Regarding the case in the Twenty-fifth Battery stationed at this post, the patient was admitted October 20. The diazo reaction is negative and the Widal positive. It is probably typhoid. This battery has been at the post only two months and has made no practice march. The board is unable to discover the source of infection of this case. There has been no other case in this battery.

The case originating in the Twenty-fifth Infantry was contracted on the march of that regiment from Niobrara to Norfolk, the point on the railroad where they took the train. The diazo and Widal tests were made for the board by First Lieut. Robert C. Loving, assistant surgeon, U. S. Army, using culture media from three different sources, viz: Fort Riley, Fort Leavenworth, and the Surgeon-General's Office. All of the suspected cases have been isolated in one of the wards at the post hospital. The Sixth Battery quarters are in process of being cleaned and disinfected.

No other steps are deemed necessary at present. There have been no new cases since October 24, 1903.

There being no further business before it the board adjourned at 3.30 o'clock p. m., October 29, 1903.

Subsequent to the adjournment of the board yesterday there have been the following developments: Case 6, Private A. H., Sixth Battery, Field Artillery, has had a severe intestinal hemorrhage. This seems to remove all doubt as to the diagnosis in this case.

The case coming from the Twenty-fifth Infantry died last night at 10.30 p. m. The post-mortem shows the characteristic lesions of typhoid in the intestines. This case has no bearing on the cases occurring in the Sixth Battery, which have been more particularly under investigation, as it was contracted in another locality. It is of importance, however, because the examination of the urine and blood in the case gave negative reactions, the Widal tests having been made three times with cultures from different sources and being negative each time. The failure to obtain positive results in these examinations in cases Nos. 1 and 2, Sixth Battery, may therefore have been due to accidental causes, and such results might have been obtained by further examinations. But it was necessary for the board to complete its proceedings and there was not time for such examinations.

It is noticeable that the outbreaks of typhoid fever described, and practically all the other cases which have occurred in the United States during the year, have been due to contaminated water. There can be but little doubt that this is the usual medium for the dissemination of the disease in armies in time of peace, just as it is in civil life. Quite a different condition of affairs obtains in time of war when water plays a minor part. This phase of the subject will be treated in detail in the full report of the Army Board, "On the Origin and Spread of Typhoid Fever in the United States Military Camps during the Spanish War of 1898," which is now in the hands of the printer. The abstract of the report, published in 1900, attracted much attention among sanitarians throughout the world, and the full report, on which Prof. V. C. Vaughan, the only surviving member of the board, has been engaged during the year, will undoubtedly be a classic on this important subject.

TUBERCULOSIS.

During the calendar year 1903, 263 cases of pulmonary tuberculosis, equivalent to an admission rate of 3.89 per thousand of strength, were reported from the Army, with 189 discharges and 36 deaths, equal to 2.79 and 0.53 per thousand men respectively.

Troops in the Pacific Islands and China showed an admission rate of 4.37 per thousand of strength as compared with 3.84 in Cuba and Porto Rico and 3.62 in the United States.

Four cases of tuberculosis of the larynx, 1 resulting fatally and 2 being discharged for disability, occurred during the year, while the 2 cases of abdominal tuberculosis admitted to sick report both died.

The rates of admission, discharge, and death for men suffering with tuberculosis of other organs were 0.30, 0.10, and 0.03 per thousand, respectively, while 2 admissions, with 1 discharge for disability, occurred from white swelling and the 1 admission for tuberculous abscess was returned to duty.

For all other tuberculosis cases, including pulmonary tuberculosis, there were 300 admissions, or 4.43 per thousand of the strength of the Army, of which 201, or 2.96 per thousand, resulted in discharge for disability, and 45, or 0.66 per thousand, terminated fatally. During the previous year 354 cases of this disease were admitted, or a rate of 4.38 per thousand of strength. There were 196 discharges and 69 deaths, equivalent to rates of 2.43 and 0.85, respectively.

Of these cases 178, or 4.20 per thousand, occurred in the United States, with 173, or 4.10, discharged for disability, and 36, or 0.86 deaths per thousand of mean strength. In Cuba and Porto Rico there were 6 cases, equivalent to 3.84 per thousand men, with 1 discharge for disability and no death. One hundred and sixteen admissions, equal to 4.86 per thousand of strength, were recorded in the Pacific Islands and China, of which 9 terminated fatally and 27 were discharged for resulting disability.

At the Tuberculosis Exposition, held at Baltimore, Md., in January, 1904, the Medical Department of the Army was represented by Maj. George E. Bushnell, surgeon, U. S. Army. The following extracts taken from his report are of interest:

> The exposition was held under the auspices of the tuberculosis commission of Maryland conjointly with the State board of health of Maryland and the Maryland Public Health Association. In the words of its founders, it was intended as "an objective presentation to the people of Maryland of the history, distribution, varieties, cost, prevention, and cure of tuberculosis." The exhibits were displayed in the corridors adjoining the McCoy Hall of Johns Hopkins University. A large number of charts presented the statistics of the subject in a graphic way, showing the relation of tuberculosis to other diseases as a cause of mortality, its incidence as affected by race, age, sex, occupation, heredity, marriage, food and drink, dwellings, wages, etc., and the economic loss to the community by its prevalence. Many photographs of the slums of the great cities showed the unhealthful and crowded tenements in which tuberculosis develops with especial frequency and also the amelioration of the sanitary conditions effected through the advice and assistance of visiting nurses, the nature and scope of whose work were further shown by statistical reports and by the histories and photographs of individual cases.
>
> Sanatoria, public and private, for the treatment of tuberculosis in the United States and abroad were shown in photographs, plans, and even in some cases by models, one of the most interesting of the latter being a model of the camp at Manhattan State Hospital for the treatment of the tuberculous insane, which was made by some of the patients. Models of tents and "shacks" used in the outdoor treatment of the disease were an interesting feature, among which the Gardner tent is especially deserving of notice. A full size Fisher tent was one of the exhibits. This tent, which is a modification of and improvement upon the Gardner tent as respects the mode of ventilation, appeared to me a most valuable contribution toward the desired end of securing perfect ventilation in cold weather with the avoidance of draughts and undue exposure.
>
> The pathology and bacteriology of tuberculosis were illustrated by a special exhibit (for the benefit of the profession only) of specimens of tuberculous organs in man and animals, of wax models of tuberculous skin lesions, and of pure cultures of the tubercle bacillus of man and animals.

In connection with the exposition proper a series of interesting lectures upon different phases of tuberculosis was given in the adjoining auditorium.

The address of Mr. Hoffman, who is the actuary of a large insurance company, discussed the mortality statistics of tuberculosis as influenced by race, age, conjugal condition, occupation, religion, heredity, etc.

Doctor Flick's address on house infection in tuberculosis emphasized the danger of confined spaces, the speaker going so far as to say that an inclosure of some kind is so necessary for the conveyance of the disease that infection is impracticable without it.

The papers by Doctor Ravenel and Doctor Salmon were of more technical nature than those that preceded them. Doctor Ravenel devoted himself mainly to combating the views of Koch as to the noncommunicability to man of bovine tuberculosis, holding that the repeated finding of the bovine tubercle bacillus in the intestinal tract of children was proof that this bacillus is a factor in the spread of the disease in the human race. Doctor Salmon's paper maintained the essential unity of the tubercle bacillus of man, cattle, fish, and birds.

The nature of the address of Doctor Knopf is sufficiently indicated by its title. It was an admirable popular presentation of the facts of tuberculosis which must be generally understood before its eradication can be hoped for.

The address of Doctor Adami consisted mainly in a critical discussion of the views of Behring that human tuberculosis is chiefly caused by the ingestion of the tubercle bacillus, and that the bovine tubercle bacillus is more infectious to man than the human. Doctor Adami supported the more commonly held view that the bacillus gains access to the human body chiefly through the lungs by the inhalation of dried sputum.

The lantern demonstration on Saturday afternoon by Doctor Potter of a large number of microphotographs showing the histology of tubercle was preceded by a popular address by Doctor Welch on the pathology of tuberculosis and the hygienic means of prevention and cure of the disease.

In the lantern demonstration on Saturday evening Doctor Huber showed by charts and photographs the distribution of tuberculosis in New York City, the local conditions favoring its spread, its racial incidence, etc. He also exhibited many views of sanatoria for the treatment of tuberculosis in all parts of the world.

This demonstration completed the programme of the exposition as originally planned, but on account of the great and unexpected interest manifested it was decided to continue the exposition for two days longer, and an address was given on Monday night, February 1, by Doctor Osler, on the "History of Tuberculosis," or, to be more exact, on the history of the development of medical knowledge of the disease and of its treatment.

The success of the exposition in accomplishing its chief purpose—that is, the awakening of the people of Maryland to a sense of their duty with reference to the prevention of tuberculosis and the care of the tuberculous—must be left to the future to determine. The plans of its founders were certainly wisely conceived and skillfully carried out, and the popular interest was all that could be desired. In fact, the size of the audiences, even in the most unpleasant weather, was constant source of surprise and gratification to the officers of the exposition.

While there was necessarily much in the lectures and the exhibits which was not new to the medical visitor, it was of great advantage to him to be enabled to study the methods adopted in this the first exposition of the kind ever attempted in the country and to meet the physicians present from Baltimore and from all parts of the United States and Canada, among whom were some of the most noted specialists in tuberculosis.

There was a gratifying unanimity among the speakers upon the practical topics as to the treatment of tuberculosis. Rest, relative or absolute, as the activity of the disease may require, an abundance of nourishing food, and outdoor life were the three essentials insisted upon in the treatment.

The great value of rest appears to be so little understood by the medical profession at large that no opportunity should be neglected of emphasizing its importance. It could be wished that the many physicians who send advanced cases of tuberculosis to the Rocky Mountains plateau with injunctions to "rough it" might have had the benefit of these addresses.

LEPROSY.

The case of leprosy has continued under treatment since last report. The results obtained are decidedly favorable, and a permanent cure is at least a possibility. Lieut. H. L. Gilchrist, assistant surgeon, U. S. Army, who has had charge of the case, under date of December 21, 1903, reports as follows:

At a recent examination of the patient the following condition was found: Physical condition excellent, heart and lungs normal, liver and spleen slightly enlarged, urine and feces negative; blood examination shows increased number of leucocytes. The nodules and swellings on the body have either become greatly reduced in size, or disappeared entirely, leaving discolored outlines of a yellowish or darkish brown color. With the disappearance of the nodules the anesthetic areas have also disappeared, so that at present areas of this kind are not to be found. The lepra bacillus, the supposed organism of leprosy, still remains, the Roentgen rays having no apparent effect on it as regards to numbers, but this organism differs from all others in relation to Koch's law, which is to the effect that in order to absolutely confirm the specific signification of any sort of bacteria it will be necessary to prove: First, that the bacteria or organism is really present; second, to be able to cultivate it outside of the organism; and, third, to again originate the same disease by means of transmission of cultures.

It will be seen according to this law there is no direct proof that the organism found is the cause of leprosy, and as the second and third parts can not be carried out, it is impossible to state whether the organism found is an active or dead one.

In trying to cultivate it all kinds of schemes and methods have been resorted to. Besides the regular laboratory media, others were prepared from fish, oysters, crabs, snakes, different kinds of plants, vegetables, etc.; these were inoculated from different sections of the body and under different degrees of heat and moisture. In some cases small sections of tissues were introduced directly into the media, but all to no avail. By experiments recently made here it has been demonstrated that if tissues containing the organism were subjected to moist and dry heat and to the different germ-destroying liquids the bacilli would undergo no change whatsoever in regard to its staining qualities, showing up just the same as organisms taken directly from the nodules. So it will be seen that there is no possible way of determining whether the bacilli are dead or alive. An experiment is now being tried on the patient which, if successful, may throw some light on the subject. In the experiment a part of the body free from bacilli is being used as a medium to grow the organism taken from another section. A small piece of membrane from the nasal cavity containing many bacilli has been introduced beneath the skin on the chest, which is apparently free from disease. Should this show any signs of growth another piece will be put through the boiling and sterilization process and this, too, transplanted; and, thirdly, a scraping from the base of the nodule that has not been exposed much will be tried in like manner and all results noted.

Application has been made to the superintendent of the Louisiana leper colony for tissue from some of the cases there, which will be used in making a comparative study of the organism with those found in our patient.

Up to the present time the patient has had about four months of X-ray treatment, including exposures to various kinds of lights, etc.; although actual treatment was commenced about May 20 last, there have been several intervals during which no treatment was administered whatsoever. The latter part of September all treatment was discontinued for a period of two months. This cessation of treatment was decided upon not only to give the patient a much-needed rest and opportunity for the heavily tanned skin to bleach out, but also to determine the effect of cessation of treatment. This rest proved very beneficial to the patient, and the desired bleaching effect of the skin not only took place, but some of the swellings, presumably from slight X-ray burns, subsided, and no signs of new nodules appeared. In fact, since commencing the X-ray treatment no new lesion of any kind has been discovered. Although the bacilli have not disappeared we know not whether they are dead and harmless or alive and still active. One thing has been demonstrated, that two of the three important constituents of the lepra nodule have disappeared—the swelling and the anesthesia.

In applying the rays in this case different parts of the body have been treated by different methods, and various schemes have been resorted to in a vain attempt to rid the system of these organisms. The rays have been thrown through different colored liquids and antiseptic solutions and medicated ointments covering the skin; also tubes of different degrees of hardness have been tried, but notwithstanding all efforts the organism still remains.

The patient is living in the building intended for the mortuary just in rear of the hospital. A five-room house has been erected for him in an isolated section of the reservation, but as all of the excitement and fear of his presence has subsided and his present quarters are far enough away to be absolutely safe, it was not deemed advisable to move him while under treatment. He is in such good condition now that no restrictions are placed upon him as to his movements about the island, but before he leaves his quarters he is compelled to wash his hands, face, and hair, with a solution of bichloride 1-2000, and in his travels he is not allowed to enter any buildings or outhouses, and no one is permitted to approach him nearer than 8 feet; in fact, all precautions are being observed to prevent any undue criticisms or comment. A private of the hospital corps has until recently always accompanied him while off the reservation, but such is not deemed necessary now. He spends most of his time out of doors, weather permitting. The enlisted men are very friendly to him, and are allowed to talk to him at all times, the only restrictions being that they shall not approach him closer than 8 feet and not enter his quarters.

As before stated the man is in excellent physical condition and claims he never felt better in his life. He has his daily routine of work and exercises; goes through the morning calisthenic drill with his company, runs on the beach, and takes long walks at will. At present he is receiving very few X-ray exposures, and no medicine of any kind.

As the X-ray treatment is purely experimental it is going to take some time to tell what the final results will be. In quoting Blaschko: "If anything can be done whereby an improvement is noticed in treating leprosy, there is hope." With the great improvement already noticed, I can only repeat a statement in a former report: "The results thus far obtained look decidedly favorable, and a permanent cure is at least a possibility." It is hoped that before long arrangements will be made whereby the patient can be assigned to outside work of some kind which will not only give the Government the benefit of his services, but will also give him something to think about besides his trouble.

Under date of April 24, 1904, Lieutenant Gilchrist submitted the following additional report on the case of leprosy:

As stated in former reports, the patient's improvement in general health and appearance and as a result of one year's treatment with the X-ray is apparent to all who have seen him, but it is to be regretted that it can not be said that he has made a complete recovery, as the lepra bacilli are still present in great numbers.

It may be said, however, that we are still in the dark regarding the nature of these organisms that have not complied with Koch's law for the determination of pathogenic bacteria in any particular and some are inclined to consider them an effect rather than a cause of the disease. Be that as it may, it is certain that up to the present the X-rays have had no apparent effect upon the organism whatsoever.

Mention was made in a previous report of experiments made by inserting under the skin pieces of bacilli-ladened tissue from the nasal cavity, which had been subjected to numerous exposures to the X-rays, and of leprous tissue sent me by the superintendent of the Louisiana leper colony.

In November the tissues were introduced under the skin on the left breast just beneath the nipple. This section of the body was decided upon because it was apparently free from all signs of the disease and microscopical examinations had failed to reveal the presence of the organism or any other signs of leprosy. Strict antiseptic precautions were observed throughout the experiment, the breast having been washed and prepared with as much care as for any surgical operation. A small lineal incision was made about one-half inch long and one-fourth inch deep, and into this the tissue from the nose was introduced. The wound was sutured with silkworm gut and sealed with collodion. About 2 inches below and to the left of this another incision was made of similar dimensions and into this a piece of the tissue obtained from the Louisiana colony was introduced and the wound closed with the same precautions. The object of the experiment was to determine whether the human body could be utilized as a medium for the growth of this organism which had refused to grow in all laboratory media.

In the case of the tissue which had been taken from the nasal cavity and previously subject to numerous X-ray exposures, a small area of inflammation soon started around the wound, this was followed five days later by a small ulcer involving the lower half of the incision and from which a slight discharge of yellowish pus was thrown out containing lepra bacilli. The wound acted very much like one caused by the introduction of any foreign substance into a wound. After a few days the discharge lessened, the lepra bacilli became less abundant and numerous examinations of the resulting bright red scar have failed to reveal the presence of the organism.

In the case of the tissue from the Louisiana Leper Colony the wound healed by first intention without signs of inflammation and examinations of snippings from the resulting scar made from time to time have revealed the presence of the bacilli, but up to the present time there has been no sign of anesthesia or swelling.

The experiment has served the purpose of demonstrating that there is a difference in the action of the two tissues, the tissue which had been exposed to the rays sloughed out and disappeared, while that which had never been exposed to the rays remained and seemed to retain its morphological condition, but showed neither evidence of increase in size, nodula formation, nor area of anesthesia.

Mangrove treatment.—Through the courtesy of Doctors Dugue and Moreno, two prominent Cuban lepra specialists, a large consignment of the different preparations of Mangrove bark was sent here to be used for the patient. It was decided to give this treatment a trial to see if it would influence in any way the organisms which were not being affected by the X-rays. All of the different preparations of the drug sent here for the purpose were tried, all directions being followed explicitly, and as the remedy was supposed to cause the bacilli to disappear from the body, experiments were carried out to determine what effect the drug has on the bacilli outside of the body.

Pieces of tissue which had been exposed to the rays, and that obtained from the Louisiana Leper Colony, were submerged into different solutions of the Mangrove bark of varying strength, also pieces were buried in the powder and left for several weeks, then taken out and examined microscopically when it was found that the organisms remained unchanged in all cases, the drug having no apparent effect upon the bacilli outside of the body.

The treatment was commenced on December 24 and continued faithfully until all of the different preparations were used up, great care being exercised at all times in following directions. As a result of this treatment the patient experienced continuous trouble with his stomach and bowels which was not only disagreeable to himself but to those around him, and he seemed greatly relieved when he learned that the last of it had been taken. Excepting an attack of indigestion and nausea lasting several weeks there was no change whatsoever in his condition.

Physical examination. On April 24, 1904, the patient was again examined thoroughly and the following noted: Heart and lungs normal, liver normal, spleen slightly enlarged, urine showed traces of sugar, feces negative, no large nodules anywhere, and no signs of anesthesia. On March 15, signs of X-ray burns were discovered on patient's elbows and later developed into superficial burns, covering areas over both elbows the size of the palm of the hand. Immediately following these burns, small swellings were discovered between some of the deeper extensor muscles of the forearm and one or two along the course of the ulna nerve. As these were deep seated and seemed to gradually disappear it was not deemed advisable to cut down on them for diagnostic purposes.

The patient having been subjected to almost daily X-ray exposures from tubes of different degrees of hardness, he presents a heavy coating of tan all over the exposed surfaces. Throughout the past year he has enjoyed excellent health, as he claims, the best in his recollection.

Blood examination.—Throughout the entire year the blood was examined from time to time and always showed an increased number of leucocytes varying from 15,000 to 40,000 per cubic millimeter with an unusual large number of eosinophiles. The man continues with his daily routine of work and exercise, including morning calisthenics, long walks, and boating. As he has been under constant treatment for nearly a year, it is recommended that all X-ray treatment be discontinued and the result of the year's treatment noted. In no case thus far has their been any sign of recurrence of any of the old nodules.

In the beginning it was intended to work on different parts of the body with the different kinds of apparatus for the purpose of comparing the results obtained from each, but in the treatment it soon became apparent that the scheme was not feasible on one patient, so that results obtained from the coil or the static machine can not be noted, but as far as the workings of the different apparatus are concerned, there is no comparison between a static machine and a coil for general work, the coil being by far the more satisfactory of the two.

I wish to take this opportunity of thanking Dr. George R. White, of Savannah, Ga., an ex-surgeon in the United States Army during the war with Spain, for the kind assistance and encouragement he has tendered at all times, and Dr. Isidore Dyer, superintendent of the Louisiana Leper Colony, for specimens of leper tissue which he has furnished me for purposes of comparison.

In the carrying out this important work too much credit can not be given to the noncommissioned officers and privates of the hospital corps detachment at this post, for the great assistance they have rendered, and the zeal and courage they have displayed at all times in connection with the work.

BERI-BERI.

There were 636 cases of beri-beri, giving an admission rate of 9.42 per thousand for the whole Army in 1903, of which 9 were discharged for disability and 25 died, equivalent to 0.13 and 0.37 per thousand of strength, respectively. These figures exceed slightly those of the previous year, with the exception of the death rate, which is a little lower than for 1902.

One admission and 4 discharges are recorded as occurring in the United States, while the remaining cases and all deaths are reported from the Pacific Islands and China, where the admission, discharge, and death rates per thousand of strength were 26.66, 0.21, and 1.05, respectively.

White troops gave 22 admissions, or 0.37 per thousand men, resulting in 4 discharges for disability and 3 deaths, equivalent to 0.07 and 0.05 per thousand of strength, while Filipinos were admitted to the extent of 128.21 per thousand, of which 1.04 were discharged for disability, and 4.59 per thousand terminated fatally. No case of this disease was reported among the negro troops of the Army.

BUBONIC PLAGUE.

No case of this disease was reported as occurring in the Army during the calendar year 1903.

INTESTINAL DISEASES.

A further reduction in intestinal affections among the troops is noted for the last calendar year. The rate of admission for the whole Army of 168.36 per thousand of strength compares most favorably with that of 1902, when the high rate of 290.61 per thousand was reported. The death rate, too, is less than half of that of the preceding year, while the rate for discharge for disability remains about the same as that for the previous twelve months. The rates of discharge and death per thousand men were 1.75 and 1.07, respectively.

While the rate of admission reported from the Pacific Islands and China of 330.11 per thousand men is still high, it shows an improvement over 1902, when the corresponding rate was 495.02 per thousand. The death rate recorded is less than half of that of the previous calendar year, being but 2.21 per thousand of troops on foreign service.

For the United States an admission rate of 79.81 per thousand is recorded, with rates for discharge for disability and death of 2.77 and 0.44, respectively, while in Cuba and Porto Rico there were 154 admissions, 1 discharge for disability, and no death reported for the year.

The following tables show in detail the effect of intestinal diseases on the troops during the calendar year 1903:

WHOLE ARMY.

	Cases.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Dysentery, acute	1,710	25.28			29	0.43
Dysentery, chronic	841	12.43	85	1.26	21	.31
Diarrhea, acute	7,560	111.76			1	.01
Diarrhea, chronic	193	2.85	6	.09	2	.03
Appendicitis and abscesses of iliac fossæ	208	3.07	5	.07	8	.12
Intestinal parasites	137	2.03				
Enteritis	740	10.94	22	.33	11	.17
Total	11,389	168.36	118	1.75	72	1.07

PACIFIC ISLANDS AND CHINA.

	Cases.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Dysentery, acute	1,544	64.83	....	....	26	1.09
Dysentery, chronic	594	24.94	....	....	17	.71
Diarrhea, acute	5,018	210.69	....	....	1	.04
Diarrhea, chronic	109	4.58	....	....	2	.08
Appendicitis and abscesses of iliac fossæ	63	2.65	....	....	2	.08
Intestinal parasites	75	3.15	....	....	....	....
Enteritis	459	19.27	....	....	5	.21
Total	7,862	330.11	....	....	53	2.21

UNITED STATES.

Dysentery, acute	155	3.67	....	....	3	0.07
Dysentery, chronic	243	5.75	85	2.01	4	.09
Diarrhea, acute	2,423	57.33	....	....	....	....
Diarrhea, chronic	82	1.94	6	.14	....	....
Appendicitis and abscesses of iliac fossæ	142	3.36	5	.12	6	.14
Intestinal parasites	60	1.42	....	....	....	....
Enteritis	268	6.34	21	.50	6	.14
Total	3,373	79.81	117	2.77	19	.44

CUBA AND PORTO RICO.

Dysentery, acute	11	7.05	....	....	....	....
Dysentery, chronic	4	2.56	....	....	....	....
Diarrhea, acute	119	76.24	....	....	....	....
Diarrhea, chronic	2	1.28	....	....	....	....
Appendicitis and abscesses of iliac fossæ	3	1.92	....	....	....	....
Intestinal parasites	2	1.28	....	....	....	....
Enteritis	13	8.33	1	0.64	....	....
Total	154	98.66	1	.64	....	....

The encouraging results obtained at the United States Army General Hospital, Presidio of San Francisco, Cal., last year in the treatment of chronic dysentery, sprue, and enterocolitis with pure olive oil did not prevail in the treatment of a small number of cases of amebic dysentery in the Philippine Islands during 1903. It appears that the oil caused more or less gastric disarrangement and its administration had to be discontinued within a few days.

Lieut. C. C. Collins, assistant surgeon, U. S. Army, reports as follows on four cases treated with oil at the First Reserve Hospital, Manila, P. I.:

No. 1. Began oil in 20 c. c. doses three times a day in a glass of hot Australian milk on September 22 and gradually increased oil to 40 c. c. Weight at beginning of treatment 100 pounds. Number of bowel movements in twenty-four hours 6. Sick for two months with amebic dysentery. No other treatment was given in this case except high irrigations of the lower bowel with $\frac{1}{3000}$ solution of quinine sulph. The patient complained that he was nauseated after each dose of oil, but did not vomit. Oil discontinued October 10; weight at this time being 98½ pounds. Number bowel movements 4 in twenty-four hours. General condition not improved.

No. 2. Condition at beginning of treatment: Weight, 108½ pounds; bowel movements, 15 in twenty-four hours. Oil begun September 22, 20 c. c., increased later to 60 c. c. t. i. d. Diagnosis: Chronic amebic dysentery, nine weeks' duration. Treatment discontinued September 10, when patient was transfered to the U. S. Army transport *Thomas*. Condition at this time as follows: Weight, 105 pounds; number of bowel movements, 7 in twenty-four hours. General condition somewhat improved; very little nausea in this case.

No. 3. Condition at beginning of treatment: Weight, 111 pounds; number of bowel movements in twenty-four hours, 6. Diagnosis: Enteritis, chronic, digestion poor. Oil given as in above cases. Frequent nausea and occasional vomiting after taking oil. Condition on discontinuing treatment October 10, when he was transferred to the U. S. Army transport *Thomas:* Weight, 114 pounds; bowel movements, 4 in twenty-four hours. Notwithstanding the nausea and vomiting this case seems to have shown more improvement than any other under my observation. He received no other treatment.

No. 4. Weight, 129½ pounds; number of bowel movements in twenty-four hours, 3. Diagnosis: Chronic amebic dysentery of six months' duration. Oil given as above. Commenced treatment September 22, discontinued it October 10. This case showed no improvement either in weight or number of bowel movements.

The oil treatment has only proved of marked benefit in one of the above cases. In the cases of amebic dysentery no improvement was noticed different from that noticed in other patients who did not get the oil. I think the above results justify a further trial in cases of frequent bowel movements where the ameba is not found and where the stomach is in condition to retain it.

The following is an interesting report on the treatment of patients suffering from dysentery in the United State Army General Hospital, Washington Barracks, D. C., by Capt. J. H. Ford, assistant surgeon, U. S. Army:

Having noted in the report of Dr. Richard P. Strong, formerly in charge of the army medical laboratory in Manila, that the bacillus and ameba dysenteriæ had occasionally been found associated in acute cases of dysentery, I suspected that the chronicity of some of my cases might be due to a mixed infection. For this reason I requested Doctor Taylor-Jones (at that time by your permission studying this bacillus in the laboratory of the Army Medical Museum) to examine the blood of those patients in order to determine whether she could obtain therewith the Pfeifer reaction with the bacillus dysenteriæ. All specimens of blood examined agglutinated (with different degrees of intensity) the acid type of this organism, but not the alkaline until after the patient had been treated with antidysenteric serum, when this reaction was obtained with the alkaline type in the only case examined for it.

Five control cases examined for both types were negative. Though the occurrence of the reaction did not of itself prove that those patients harbored the bacillus when they came under observation, no other means of determining their present infection was available and the fact was deemed worthy of consideration in treatment. It may be mentioned that in the chronic cases the B. dysenteriæ is very rarely found in the stools except in acute exacerbations, and very rarely then, though they may be found post-mortem in such cases embedded in the tissues of the colon. Doctor Taylor-Jones isolated the bacillus from the stools of one of my patients when he was suffering from an acute exacerbation. This patient, Lieutenant J., had been ill for two years and four months and had been operated upon one year before he came under my care for abscess of the left lobe of the liver.

Until quite recently, I have tried with mediocre results, hydrozone, silver nitrate, and other drugs usually employed in the treatment of this disease. Quinine in solutions of the strength usually employed gave poor results, but the following formula I have found efficacious and still use it in chronic cases when the drugs here recommended are not available:

R. Quinine sulph	15
Ac. tannic	30
Aq. steril	1,500

Sig: Use as enema daily.

Far better than quinine for this purpose, however, is eucalyptol or Ol. eucalypti in solutions of from 0.05 to 0.20 per cent strength. Of these the former is much preferable, since its composition is less complex than is that of the latter, and it passes into suspension much more readily. Glycerin in small amounts (10 to 30 c. c. per 1,000 c. c. of water) may be employed to facilitate diffusion, but is not necessary. Both of these preparations, because of their stimulating properties and toxic power upon protozoa, were of great value in amebic dysentery, but only in chronic cases. Upon the appearance of an acute or subacute exacerbation, from whatever cause, their use was stopped at once and eucalyptus gum, in solutions of from 0.10 to 0.40 per cent strength, was employed in enemata in their stead. This last-mentioned drug has both astringent and amebacidal properties, and proved of such value in the treatment of those exacerbations occurring in the course of chronic amebic dysentery that its employment is strongly suggested in cases of this variety which are frankly acute. It is also found of value in chronic cases which are especially liable to exacerbations, but in which none were actually occurring. I have given both eucalyptus gum and eucalyptol in the same solution in selected cases of this type with gratifying results.

As an excipient for the eucalyptus gum in the more acute cases sterile water was generally used, but much better results were secured from the use of milk, or a mixture of milk and olive oil.

Much of the efficiency of olive oil in the treatment of dysentery is, I believe, due to its local action upon the inflamed surface in the bowel. All patients in my series were given the oil (the purity of which had been authenticated by Doctor Hodge, the official analyst for the Medical Department), but only two were benefited by its use per oram. The others were unable to take more than gm. VIII three times daily because of the gastric uneasiness its use occasioned. The two who were benefited took about twice that amount without much discomfort. Since the oil appeared in small quantities in stools of these two patients, but did not appear in the stools of those who took the smaller amounts, I was led to believe that the oil absorbed had but little beneficial influence, while that eliminated tended to heal the surface with which it came in contact. The best results from its use by enema were secured in the case of Major A. The local use of oil is followed by better results in the bacillary type of the disease than in the amebic type, and in the acute rather than in the chronic stages of the disease. Its function is essentially sedative.

With olive oil, modifying its soothing influence but not destroying it, I have given with most gratifying results Ol. gaultheriæ in solutions of 0.05 to 0.20 per cent strength. This found its greatest usefulness in chronic dysentery of bacillary origin. With the appearance of an exacerbation its use had to be discontinued, but was renewed with advantage when the symptoms ameliorated.

Because of the scarcity of pure olive oil I have used it in quantities of from 60 c. c. to 125 c. c. suspended in 1,000 c. c. of warm fresh milk, with which it had been recently agitated. It may be mentioned that fresh milk is a homely remedy which has proven efficacious in relieving inflammatory conditions of the lower bowel when pure olive oil was not obtainable.

About one-half hour before the administration of a medicated enema the patients have as a rule been given a cleansing enema of sodium bicarbonate in from 2 to 4 per cent strength. A solution of this salt gives much better results than does a solution of calcium chloride, since it is less irritating and removes mucus more readily. If for any reason a separate cleansing enema is not desired, the sodium bicarbonate may be given in the same solution with the eucalyptus or other remedial agents of this type. I have generally given only one medicated enema daily, and have sought to eliminate the ameba by use of eucalyptol and eucalyptus gum before I employed Ol. gaultheriæ in bactericidal enemata. I have never given eucalyptol and Ol. gaultheriæ in the same solution, but it is probable that this could be done with advantage in chronic cases of mixed infection.

Of the other agents which have been employed per rectum I may state that the mineral astringents, of which silver nitrate is the best, gave less satisfactory results than did the vegetable ones. It was supposed that protargol, because of its power of penetrating the tissues, would prove of value, but its use in solutions of even 0.25 per cent strength caused arrythmia cordis, so that its usage had to be discontinued. I have had no experience in this connection with the other soluble silver salts, argyrol, collargol, etc.

An antidysenteric serum prepared by an American firm was used with fair success. It certainly was not as useful as that which I have seen used by Strong in Manila or that which Doctor Hodge tells me is prepared in Kitasato's laboratory in Japan. The firm furnishing the supply which I used frankly refused to vouch for its efficiency. This serum was said to have been developed from both the alkaline and acid types of the B. dysenteriæ. Injections of 10 c. c. were given at intervals for several weeks with rather indifferent results. In only one case was much improvement manifest. This patient gained 13 pounds in twenty-eight days, having received during that period 50 c. c. of serum. A supply of the serum manufactured in Kitasato's laboratory has recently been requisitioned, and it is hoped that this will give more satisfactory results.

The only remedy given by mouth was cupric arsenite. This drug, because of its tonic, antiperiodic, and slight astringent properties, is peculiarly valuable in this disease. In the series here discussed there was no case in which malaria played an obvious part, but the fact that a latent infection with the malarial organism may cause protracted illness clinically identical with dysentery has proved that the exhibition of the drug is useful routine practice. No salts of bismuth were used, since it is believed they hinder the elimination of the amebæ and bacillæ dysenteriæ.

Of the seven patients whose cases are here discussed five have returned to duty or are about to do so. The remaining two cases are improving steadily. In view of the fact that the line of treatment above described has been followed less than two months, that one of the uncured patients has been ill with dysentery for five years and the other for two years and four months, and that in the other—i. e., the cured cases—the illness averaged two years and one month duration, it is believed that the eventual recovery of those who remain under treatment may yet be expected.

In January, 1904, the surgeon at Fort Porter, N. Y., reported the presence of intestinal parasites in men of the command, nearly all of whom were admitted for other conditions. No symptom was noted in these cases other than slight irregularity in the bowels, to which no attention had been given. The ankylostoma appeared to be present in small numbers in most cases, but in one instance more than fifty worms were obtained after a single administration of thymol. The trichocephalus was very constant, but apparently there were only a few worms in each host. The ascarides were found in numbers of from one to eight or ten. The Tænia nana was of most interest and was found in old chronic cases of bowel trouble associated with anemia. From one case about fifty were obtained after a single dose of male fern, and from the other over a hundred. Owing to the difficulty in detecting them in the stools there is no doubt but that they were present by hundreds. Whether or not their removal will cure these old chronic cases remains to be seen.

All the diagnoses were made by the microscopical examinations of the feces, and owing to the number of cases detected the examination of the stools of all patients admitted to hospital has been made a matter of routine. The diagnosis has been confirmed by finding the worms themselves in each instance except the trichocephali, which have not been found, but the ova are so easy of absolute identification that there can be no doubt whatever of the presence of the worms.

VENEREAL DISEASES.

The number of admissions to sick report for venereal diseases in 1903 remains large. Although the admission rate for the whole Army was slightly lower than that of the preceding year, the ratio of discharge per thousand of strength was a little in excess of that of last year, while a total of 4 deaths was reported for the Army.

The ratios of admission, discharge, and death in the Army per thousand of mean strength during the calendar year 1903 were 151.48, 4.64, and 0.05 respectively, compared with 160.94, 3.83, and 0.01, the corresponding rates for the previous year.

The following is a tabulated statement of venereal diseases in the Army occurring in the different countries in the past year:

WHOLE ARMY, PER THOUSAND OF STRENGTH.

	Admissions.	Discharges.	Deaths.
Syphilis	23.42	3.23	0.05
Gonorrhea and complications	96.14	1.41	
Chancroids	31.92		
Total	151.48	4.64	.05

ARMY IN THE UNITED STATES.

Syphilis	23.64	4.89	0.07
Gonorrhea and complications	84.09	2.15	
Chancroids	28.11		
Total	135.84	7.04	.07

ARMY IN PACIFIC ISLANDS AND CHINA.

	Admissions.	Discharges.	Deaths.
Syphilis	22.12	0.08	0.04
Gonorrhea and complications	115.68	.08	
Chancroids	37.20		
Total	175.00	.16	.04

ARMY IN CUBA AND PORTO RICO.

	Admissions.	Discharges.	Deaths.
Syphilis	37.80	6.40	
Gonorrhea and complications	124.28	1.28	
Chancroids	54.45		
Total	216.53	7.68	

Under date of March 3, 1904, Maj. Charles F. Mason, surgeon, U. S. Army, reports his experience in the treatment of syphilis by hypodermic injections of mercury as follows:

Most of the infections here being of a mixed character (chancroid and syphilis), we do not commence treatment until secondaries appear—a rash, mucous patches, periostitis, etc. Then the injections are begun at once, being given twice a week until all symptoms have disappeared, and then once a week until 12 to 15 injections have been given. After this the patient, whose name meantime has been placed on the syphilitic register, is kept under observation, but is given no further injections, unless symptoms reappear, when he is given a second course of six injections at intervals of a week. Very seldom has a second course been necessary.

The preparation used is a gray oil made of metallic mercury, carefully rubbed up with lanolin, with or without liquid vaseline. I have tried both formulæ and am inclined to prefer that with liquid vaseline (formula of Lang).

℞. Lanolin dehydrat	15.000
Chloroformi	50.000

Evaporate in a large mortar with continual stirring down to 30.000. Then add Hydrarg. bidistillat., 30.000. Stir slowly until the chloroform is wholly evaporated and the mercury can no longer be distinguished.

Sig. Ung. cinereum lanolinat. fort.

℞. Ung. ciner. lanolinat. fort	9.000
Petrolat liquid	3.000

Add the oil to the ointment very gradually with constant stirring until a smooth, oily mixture is obtained. Keep in a wide-mouthed phial with glass stopper.

Sig. Ol. cinereum, 50 per cent.

Of this the dose is a minim, containing about a grain of metallic mercury.

The injection is made, with antiseptic precautions, on either side of the spinal column, about 1½ inches apart, six injections being placed on each side. The needle is carried obliquely into the muscles. The injections are not painful, but are usually followed by considerable induration and tenderness, which often lasts a week or more. The patient sometimes states that the injection causes a sensation of a blow on the back and is almost immediately followed by a metallic taste in the mouth. About 150 cases, aggregating some 2,000 injections, have been given under my direction with most satisfactory results. The only bad effects in all these cases have been about a dozen local abscesses, and less than half a dozen mild cases of ptyalism. I believe that with care neither of these complications should occur, except very rarely. In over 500 injections given by me there were no bad results of any sort.

There is one point to be borne in mind, viz: often a painful, tender, and even reddened swelling occurs at the point of injection, which would, if let alone, disappear of itself; opened under the mistaken idea that it is an abscess no pus is found, but a slow-healing wound is left.

The disappearance of symptoms under this treatment is marvelous; skin eruptions fade, fever ceases, and the patient gains flesh and strength. One case, however, of my series, developed acute pulmonary tuberculosis (T. B. in sputum), in the midst of his course, and died from it; as he was a recently arrived recruit his previous health could not be determined.

As to permanence of results my oldest cases are of about two years standing; nearly all the older cases have gone to the Philippines, but a few who are still under observation continue in perfect health.

A case of gonorrheal pyemia was admitted to the United States Army General Hospital, Presidio of San Francisco, Cal., January 15, 1904. The patient complained of pain and swelling in muscles of right side of neck, right arm, right leg, and left arm. No other symptoms were complained of, nor were any discovered, except a slight temperature and coated tongue. In June, 1900, patient had a severe attack of gonorrhea, complicated by an epididymitis of the right side, which he claims was cured after about two months' treatment, when also the discharge from urethra ceased. While en route from Manila, P. I., to San Francisco, Cal., the patient had intercourse at Nagaski, Japan, but emphatically denies that he had any symptoms of gonorrhea or any inconvenience whatever until about two days before arrival at San Francisco, when he noticed pain and swelling of the muscles above mentioned, namely, of the right sterno-mastoid, the right shoulder, the right thigh posteriorly, and left upper forearm. These localities were tender, red, and swollen, and even at this time no discharge had been noticed from the urethra until the day he was admitted to this hospital. Upon careful examination the day after admittance, January 16, 1904, a circumscribed abscess was found, involving the extensor carpi ulnaris and extensor minimi digiti muscles at the upper part of the forearm, about $1\frac{1}{2}$ inches below the inner condyle of the humerus; another abscess at the lower anterior border of the right sterno-mastoid muscle, just underneath the latter. The right biceps was hard and indurated about its middle, and the flexor muscles of the thigh were in like condition. Also tenderness at the right shoulder just at the anterior border of the deltoid muscle was noted. These inflamed localities were carefully cleansed externally and wet dressings of bichlorid of mercury ($\frac{1}{2000}$ solution) applied, and the urethra irrigated twice daily with protargol (solution 1 per cent).

January 21 the abscess of the left forearm was opened and about 45 c. c. of pus evacuated. Two smears of this pus were taken for microscopical examination. The cavity was flushed with hot bichlorid solution, packed with iodoform gauze and dressed antiseptically. The abscess at the border of the right sterno-mastoid muscle was opened at this time also, carefully cleaned out, and packed with gauze.

On January 22 the swelling at the junction of the right deltoid and pectoralis major muscles had developed to such an extent that fluctuation was detected and it was promptly opened. A culture of the pus was made on blood serum, this cavity was then flushed out and packed with iodoform gauze, and, as no more abscesses were in evidence or have been since, the patient was placed on light nutritious diet, bowels kept open by salines, whisky given every four hours, and a careful temperature and pulse chart kept daily. The pus from the last abscess, that of the shoulder, was also obtained on a cover glass and prepared for staining for microscopical examination. It showed innumerable gonococci and nothing else, the cocci being more plainly seen in this specimen than any previous ones. A blood count showed a marked leucocytosis, 66,000.

On January 24 the blood serum culture showed a typical growth of the gonococcus in yellowish isolated spots on the culture media.

It is highly probable that this case was one of pyemia of some duration, more or less latent until a new stimulus was awakened by the second infection acquired in Japan, and not fully developing until two or three weeks afterwards.

Altogether it is an interesting case, and those patients having gonorrhea, suddenly developing abscesses of the muscles, etc., or of internal organs, with no other appreciable cause, can be suspected, with reason, of having gonorrheal pyemia, but the diagnosis should be guarded until the condition is assured by a bacteriological examination.

METHYL ALCOHOL POISONING.

Three cases were reported during the year with two deaths, both occurring in less than twenty-four hours. The symptoms were pain in abdomen, vomiting, headache, albuminuria (2 cases), depression of the heart and respiration, followed in the fatal cases by unconsciousness preceding death.

FILARIASIS.

In the Army as a whole there were 12 cases of this disease reported during the year, with no death and no discharge. All of the admissions occurred among native Porto Rican soldiers in whose blood filarial embryos had been demonstrated. Seven of the cases were lymphadenitis and lymphangitis, 3 were filarial fever, and 2 were diagnosed simply filariasis.

The following extract is taken from an interesting report of Capt. B. K. Ashford, assistant surgeon, U. S. Army, on the prevalence of filariasis in the troops of the Porto Rican Provisional Regiment:

> While at Ponce in 1902–3 with Asst. Surg. Joseph Goldberger, United States Public Health and Marine-Hospital Service, I made an extended study of many cases of filariasis. From the wards of the Tricoche Hospital, a large civil institution of Ponce, to which I had access by the courtesy of its chief, Dr. Luis Aguerrevere, I was enabled to obtain abundant material. To these may be added cases seen in the city and in consultation with its physicians. Struck by the decidedly large number of such cases, I was of the belief from what had been seen that about 10 per cent of the people of Ponce were infected.
>
> On change of station to Cayey these observations were furthered by a study of the blood of the 250 native soldiers at this post. Nightly a squad of from 10 to 15 men were examined, and not only did I find that 30 men in all were infected, but that each company contributed about an equal quota. This number of men examined is insufficient to form a correct idea of the proportion of infected here on the island, even without considering the possibility that mosquitoes have fomented an epidemic from a few original cases. The latter objection seems, however, to be not very valid if personal histories from the lips of these men are true. Such histories, when considered in one or two cases, generally admit of doubt. Certain distinctly suspicious attacks of phlebitis, with or without chyluria, and always with swollen and painful inguinal glands, are recounted by nearly all. These attacks, in nearly every case, preceded their enlistment, and when one considered that the soldier is unwilling to give a history of previous disease which might damage his record, and which he himself is personally persuaded is of venereal origin, these histories may be given more credence. It is of additional note that mosquitoes are not the pest here (Henry Barracks) that they are in the immediately adjoining town of Cayey, owing to the strenuous efforts of the former post surgeon and commanding officer to rid the post of them as a general means of sanitation.
>
> My conclusion is therefore that, broadly speaking, the troops of this command have not been the subject of an increasing epidemic of filariasis, but that those infected with the parasite brought it into the service with them. It is extremely difficult to get family histories of the disease, as while generally willing to acknowledge the existence of "buboes" in themselves, they did not care—naturally enough—to thereby involve their parents or other relatives. The type was apparently, in all cases, filaria nocturna.

There have been but few physicians on the island who have studied individual cases microscopically. The first to diagnose filariasis by the microscope seems to have been Dr. Jimenez Cruz, of Caguas, P. R., who states that ten years ago he found the circulating embryos in the blood. There has been no attempt whatsoever previous to this report to determine the extent of the infection among the people at large.

ASIATIC CHOLERA.

In 1903 a very noticeable decrease in the number of cases and deaths from this disease is recorded over the preceding year. The admission rate of 2.20 and death rate of 1.42 compares most favorably with the corresponding rates of last year for the whole Army, when 6 per thousand of strength were admitted and 3.54 died.

The 149 cases occurred in the Philippine Islands, and show an admission rate equivalent to 6.26 per thousand of troops serving in the Pacific Islands and China, with a death rate of 4.03. Colored troops escaped infection, while white troops had 105 cases, or 1.76 per thousand of strength, with 68 deaths, equal to 1.14 per thousand men, and the Filipino troops had 44 admissions and 28 deaths, equivalent to 9.19 and 5.85 per thousand, respectively.

ALCOHOLISM.

A slight decrease in the number of admissions for alcoholism in 1903 is noted over the calendar year 1902, but the rate remains slightly higher. From the whole Army 1,670 cases, equivalent to 24.69 per thousand of strength, were admitted, resulting in 12 discharges for disability and 12 deaths. The corresponding data for the previous year were 1,830 admissions, equivalent to 22.65 per thousand of strength, with 7 discharges and 24 deaths, equal to 0.09 and 0.30 per thousand, respectively.

Of the total number of admissions 1,541 were for acute alcoholism, 73 for chronic, and 56 for delirium tremens, equivalent to 22.78, 1.08, and 0.83 per thousand men. Eight deaths resulted from acute alcoholism, equivalent to 0.12 per thousand mean strength; 3, or 0.04 per thousand, from chronic, and 1 from delirium tremens, while 1 discharge was caused from delirium tremens and 11, or 0.17 per thousand, from chronic alcoholism.

Of the 42,264 troops serving in the United States, 1,041, or 24.63 per thousand, were admitted for acute alcoholism, of which 6, or 0.14 per thousand, terminated fatally. Thirty-seven cases, or 0.88 per thousand, were treated for delirium tremens, with 1 discharge, and 51, or 1.21 per thousand, for chronic alcoholism, with 11 discharges, equivalent to 0.26 per thousand men, and 2 deaths.

For troops serving in Cuba and Porto Rico a higher rate than the large one of last year was reported. The rate of admission for acute alcoholism was 51.25, or nearly three times as great as the corresponding rate for the troops in the Pacific Islands and China. There were 4 admissions, or 2.56 per thousand men, for delirium tremens and 2, or 1.28, for chronic alcoholism, with no death and no discharge.

A slight increase in alcoholism is noted in the Pacific Islands and China over the rate of last year. The 420 admissions for acute alcoholism gave an admission rate of 17.63 per thousand troops, resulting in 2 deaths, while of the 15 cases of delirium tremens treated 1 terminated fatally. Twenty admissions, equivalent to 0.84 per thousand, and 1 death resulted from chronic alcoholism.

INSANITY.

A large reduction in the cases of insanity occurred in the Army during 1903, there being only 72 original admissions for the calendar year, equivalent to the low rate of 1.06 per thousand of strength.

Of the cases admitted this year and those remaining in the Government Hospital for the Insane and the army hospitals at the close of the last calendar year, 2 were returned to duty, 2 discharged by special orders, War Department, 1 died en route to the asylum, 3 committed suicide, and 75, or 1.11 per thousand of strength for the whole Army, were discharged for disability, leaving 19 under treatment December 31, 1903.

Of the total number of admissions for the year, 43, or 1.02 per thousand men, occurred in the United States, while 71 of the 75 discharges for disability and the 1 death were reported from home stations.

In Cuba and Porto Rico the high rate of 2.56 per thousand is recorded for the 4 cases admitted to sick report, all being discharged for disability.

The admission rate in the Pacific Islands and China was 1.05 per thousand of mean strength for the 25 cases reported. There was no death and no discharge from this cause among the troops in the Philippines during the year.

EXTERNAL CAUSES.

The admission rate for external causes was 222.68 per thousand men for the 15,063 cases reported in the Army from a mean strength of 67,643 during the year. Of the total number of cases, 120 were discharged for disability, or 1.77 per thousand troops, and 154 died, equivalent to a mortality rate of 2.28 per thousand of strength.

The 10,371 cases in the United States gave an admission rate of 245.39, with 116 discharges for disability, equivalent to 2.74 per thousand, and a death rate of 1.82 for troops serving at home stations.

For the Pacific Islands and China, less than one-half of the total number of cases reported in the United States is recorded, equivalent to an admission rate of 178.27 per thousand of strength, with 3 discharges and 76 deaths, including those killed in battle, equal to rates per thousand of troops on foreign service of 0.13 and 3.19, respectively.

In Cuba and Porto Rico, with a mean strength of but 1,561, the high admission rate of 285.72 is recorded, with but 1 discharge and 1 death.

There were 30 deaths from drowning, equivalent to a rate of 0.44 per thousand, reported for the whole Army during the year, 13 in the United States and 17 in the Pacific Islands and China, a decided decrease when compared with 1902, when the rate reported for the whole Army was 0.61 per thousand of mean strength.

Exhaustion from exposure and fatigue caused the admission of but 48 cases to sick report during the year, equivalent to the small rate of 0.71 per thousand for the whole Army. There was no fatality from these causes. Twenty-two of these cases occurred in the United States, equal to a rate of 0.52 per thousand; in Cuba and Porto Rico 1, equivalent to 0.64 per thousand, and in the Pacific Islands and China 25, or 1.05 per thousand of strength.

The number of cases of heat stroke increased from 85 admissions in 1902 for the whole Army to 198, equivalent to a rate of 2.93 per thousand during the last calendar year. Of these, 56 or 1.33 per thousand were recorded in the United States; while the Pacific Islands and China had 131 or 5.50 per thousand admissions, and Cuba and Porto Rico 11, or 7.05 per thousand of mean strength, with the one fatal case reported in the Army for the year.

One death occurred in the Philippines and one admission was reported with recovery as a result of being struck by lightning.

From venomous bites, stings, and wounds, 162 entries are recorded on sick report for the year, equivalent to an admission rate for the whole Army of 2.39 per thousand, with no death and no discharge, a decided decrease in the number of admissions for 1902, when 535 cases were reported.

Of the admission rate for external causes for the whole Army of 222.68 per thousand of strength, 121.46 per thousand were for abrasions, burns, sprains, and wounds contused, incised, lacerated, and punctured. There were 613 fractures, exclusive of gunshot, equivalent to 9.07 per thousand men, with 25 discharges for disability and 12 deaths, equal to rates per thousand of 0.37 and 0.18, respectively. Two hundred and forty-three dislocations, or one less than in 1902, were reported, with 4 discharges and 3 deaths.

In the Philippine Islands 6 men were killed in action, exclusive of gunshot, and 18 wounded, of which 3 died and 1 was discharged for disability. The following tables show in detail the character and location of the wounds, the weapon used, and the disposition in each case:

Wounds other than gunshot received in action (exclusive of deaths not on sick report).

Character and location of wound.	Weapon.						Disposition.				
	Bolo.	Campilan.	Dagger.	Kris.	Spear.	Total.	Duty.	Certificate of disability.	Died.	Expiration of term of service.	Remaining Dec. 31, 1903.
Head:											
Flesh	1			1		2	2				
Fracture					1	1					1
Neck	1		1			2	1		[a] 1		
Thorax:											
Nonpenetrating					1	1	1				
Penetrating	1					1	1				
Abdomen, penetrating					1	1			1		
Shoulder, flesh	1					1	1				
Arm, flesh		2		1		3		[b] 1	[c] 1	[d] 1	
Forearm, flesh		1				1					1
Hand, flesh				1		1	1				
Thigh, flesh		2		1		3	3				
Leg, flesh	1					1	1				
Total	5	5	1	4	3	18	11	1	3	1	2

[a] Wounded July 20, 1903; died day after injury of shock following operation for traumatic aneurism of left common carotid artery.

[b] Wounded April 10, 1903; amputation left arm, middle third, on date of injury; April 14, 1903, shoulder joint amputation; discharged on surgeon's certificate of disability August 11, 1903.

[c] Died day of injury of hemorrhage from severed axillary artery.

[d] Wounded April 10, 1903; amputation left arm, middle third, April 13, 1903, partial reamputation April 26, 1903; removal of humerus 1 inch higher to gain sufficient flap; discharged at expiration of service, December 25, 1903.

Killed in action by wounds other than gunshot wounds.

Character and location of wound.	Bolo.	Kris.	Spear.
Neck		[a]1	
Thorax, penetrating			1
Abdomen, penetrating			1
Thigh, flesh			[b]2
Leg, flesh	[c]1		
Total	1	1	4

[a] Head nearly severed.
[b] Femoral vessels severed in both cases.
[c] Died of hemorrhage from divided popliteal artery.

GUNSHOT INJURIES.

At the close of the last annual report there remained under treatment 14 cases of gunshot wounds, 5 of which were received in action and 9 not in action. Of those received in action, 2 were discharged for disability and 3 were returned to duty. Of the 9 cases which were not battle wounds, 5 were returned to duty and 4 were discharged for disability, as shown in the following tabulation:

Disposition of gunshot-wound cases remaining in hospital January 1, 1903.

Character and location of wound.	How received.								
	In action.			Not in action.			Total.		
	Remaining last report.	Disposition.		Remaining last report.	Disposition.		Remaining last report.	Disposition.	
		Duty.	Certificate of disability.		Duty.	Certificate of disability.		Duty.	Certificate of disability.
Face, fracture	1	1					1	1	
Shoulder, flesh				1	1		1	1	
Forearm, fracture	1		1				1		1
Thigh:									
Flesh	2	2		2	1	1	4	3	1
Fracture lower third	1		1				1		1
Kneejoint				1		1	1		1
Leg fracture				2	1	1	2	1	1
Foot:									
Flesh				2	2		2	2	
Fracture				1		1	1		1
Total	5	3	2	9	5	4	14	8	6

NOTE.—In addition to the above, there were three discharges for old gunshot wounds not on sick report during the years 1902–3.

During the year 1903, 36 men were killed by gunshot, only 7 of whom met their death in action. Seven of the deaths were accidental, 19 suicidal, and 3 homicidal. The following table gives a summary of these cases:

Killed by gunshot, 1903.

Character and location of wound.	How received.					Nature of missile.							
		Not in action.				In action.				Not in action.			
	In action.	Accidental.	Suicidal.	Homicidal.	Total.	Krag-Jörgensen.	Remington.	Mauser.	Missile not stated.	Krag-Jörgensen.	Revolver.	Springfield.	Missile not stated.
Head, fracture	3	3	10	....	16	1	1	1	....	7	5	1	....
Thorax, penetrating	2	3	8	2	15	....	....	....	2	5	4	2	2
Abdomen, penetrating	....	....	....	1	1	....	....	....	....	....	....	....	1
Thigh, flesh	[a]2	....	....	....	2	....	2	....	....	....	....	....	....
Wound not described	...	1	1	....	2	....	....	....	....	....	1	....	1
Total	7	7	19	3	36	1	3	1	2	12	10	3	4

[a] In one case the popliteal, in the other the femoral, artery was severed.

Besides the 36 men killed outright by gunshot there were 196 cases of gunshot injury brought to the hospitals for treatment, of which 126 were returned to duty, 16 discharged for disability, 21 died, 4 were otherwise disposed of, and 28 remained under treatment at the end of the last calendar year. Of the 196 cases admitted during the year only 43 were received in action, but 108 of the remainder were reported as having been incurred in the line of duty, 32 not in the line of duty, 9 suicidal, and 4 homicidal. The gunshot casualties of battle amounted, therefore, to 7 killed and 43 wounded, a total of 50, the killed constituting 14 per cent of those struck; but as 3 of the cases admitted to hospital died from the effects of their injuries, the deaths among those struck constituted 20 per cent.

Five cases of fracture of cranium were reported, 4 of which died and 1 remained under treatment at the end of the calendar year. This case was trephined, branch of cerebral artery ligated, but the ball was not recovered.

Four cases of fracture of facial bones were admitted to sick report, 1 of which proved fatal, while the others were returned to duty.

The one case of fracture of the spine, which occurred not in the line of duty, terminated fatally.

The thorax was penetrated 14 times, 3 of which were fatal. In 1 of the 2 cases remaining under treatment December 31, 1903, resection of the eighth and ninth ribs for drainage of empyemic cavity was done.

Nine cases of penetrating wound of abdomen were reported, 8 of which were fatal and 1 was returned to duty. In 1 case laparotomy, incision 6 inches long in median line, rent 1 inch in diameter in posterior wall of bladder, was sutured; while in a second case laparotomy, resection 5 c. m. of ileum, anastomosis with Murphy's button, was done.

The arm was reported as having been fractured 9 times, with 1 case returned to duty, 6 discharged for disability, and 2 remaining at end of year. Amputation was performed in 4 of these cases, while resection was done in a fifth, all of which resulted in recovery.

Five cases of fracture of forearm appear on the reports of sick and wounded, 1 remaining under treatment at the end of the calendar year. Three of the cases were returned to duty and 1 was discharged for disability.

Among the 16 flesh wounds of the thigh there was 1 death from gangrene, acute emphysematous.

The carpus or metacarpus was fractured in 15 instances, of which 6 cases were returned to duty, 4 discharged for disability, 1 discharged by order, 3 remained on sick report at end of year, and 1 died from tetanus after operation for removal of trapezium, trapezoid, external half of scaphoid and disarticulation first finger and second metacarpal, ligation of radial and superficial palmar branch of ulnar artery and radial extremity of deep palmar arch.

The two fractures of middle third of thigh reported both terminated fatally. In one a resection of comminuted fracture was done and in the other amputation at junction of middle and upper thirds was performed.

The 1 case of fracture of leg reported in 1903 was returned to duty.

The foot was fractured in 9 cases, including 1 case of fractured toe. One case in which the great toe was amputated remained under treatment December 31, 1903, while no fatal case was reported from the fractures of the foot.

A summary of the data concerning these gunshot wounds is given in the following tabulations:

A. Gunshot wounds received in action.
B. Gunshot wounds other than battle wounds.
C. All gunshot wounds.
D. Gunshot wounds which terminated fatally.
E. Surgical operations for gunshot wounds.

A.—*Gunshot wounds received in action (exclusive of deaths not on sick report).*

Character and location of wound.	Nature of missile.							Disposition.				
	Krag-Jörgensen.	Mauser.	Remington.	Revolver.	Slug.	Missile not stated.	Total.	Duty.	Certificate of disability.	Died.	Remaining on sick report.	Total.
Head:												
Flesh	....	....	....	....	....	1	1	1	....	....	....	1
Fracture	....	....	....	....	....	1	1	....	....	1	....	1
Face, flesh	....	1	....	....	1	1	3	3	....	....	....	3
Neck	....	1	2	....	....	....	3	3	....	....	....	3
Thorax, nonpenetrating	....	....	2	....	....	....	2	2	....	....	....	2
Abdomen:												
Nonpenetrating	....	....	1	....	....	....	1	1	....	....	....	1
Penetrating	....	....	1	1	....	....	2	....	....	2	....	2
Perineum, genital and urinary organs	....	....	....	....	....	1	1	1	....	....	....	1
Shoulder, flesh	1	....	1	....	....	....	2	2	....	....	....	2
Arm:												
Flesh	....	....	2	....	1	....	3	3	....	....	....	3
Fracture	1	....	3	....	....	1	5	1	3	....	1	5
Forearm:												
Flesh	....	....	....	....	....	2	2	2	....	....	....	2
Fracture	....	1	....	....	....	2	3	2	1	....	....	3
Hand, flesh	....	....	....	....	....	1	1	1	....	....	....	1
Fingers, fracture	....	....	....	....	....	1	1	....	....	....	1	1
Thigh, flesh	....	....	6	....	....	2	8	7	....	....	1	8
Leg, flesh	....	....	1	....	1	1	3	3	....	....	....	3
Foot, flesh	....	....	....	....	....	1	1	1	....	....	....	1
Total	2	3	19	1	3	15	43	33	4	3	3	43

B.—*Gunshot wounds other than battle wounds (exclusive of deaths not on sick report).*

Character and location of wound.	How received.					Nature of missile.												Disposition.							
	In line of duty.	Not in line of duty.	Suicidal.	Homicidal.	Total.	Krag-Jörgensen.	Springfield.	Remington.	Winchester.	Revolver.	Shotgun.	Explosion of cartridge.	Explosion of powder.	Bursting of gun.	Breechblock.	Missile not stated.	Total.	Duty.	Certificate of disability.	Died.	Expiration of service.	Discharged by order.	Dropped.	Remaining last report.	Total.
Head:																									
Flesh	1	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	1	1	....	....	....	....	....	....	1
Fracture	3	1	....	....	4	2	....	....	....	1	....	....	....	....	....	1	4	....	....	3	....	....	....	1	4
Face:																									
Flesh	3	....	....	1	4	2	....	....	....	....	1	....	....	....	....	1	4	4	....	....	....	....	....	....	4
Fracture	1	2	1	....	4	1	....	....	....	3	....	....	....	....	....	....	4	3	....	[a] 1	....	....	....	....	4
Neck	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	1
Spine, fracture	....	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	1
Thorax:																									
Nonpenetrating	2	....	1	....	3	1	....	....	....	2	....	....	....	....	....	....	3	2	....	....	....	....	....	1	3
Penetrating	5	2	5	2	14	4	....	1	....	5	....	....	....	....	....	4	14	6	....	[b] 3	....	2	[c] 1	2	14
Abdomen:																									
Nonpenetrating	2	....	....	....	2	1	....	....	....	....	....	1	....	....	....	....	2	2	....	....	....	....	....	....	2
Penetrating	5	1	....	1	7	3	....	....	....	4	....	....	....	....	....	....	7	1	....	6	....	....	....	....	7
Back and hip, flesh	1	4	....	....	5	1	....	....	....	2	2	....	....	....	....	....	5	4	....	....	....	....	....	1	5
Shoulder, flesh	2	3	1	....	6	1	....	....	....	5	....	....	....	....	....	....	6	6	....	....	....	....	....	....	6
Arm:																									
Flesh	1	1	....	....	2	1	....	....	....	1	....	....	....	....	....	....	2	2	....	....	....	....	....	....	2
Fracture	3	....	1	....	4	2	....	....	....	1	....	....	....	....	1	....	4	....	3	....	....	....	....	1	4
Forearm:																									
Flesh	1	1	....	....	2	....	....	....	....	1	....	1	....	....	....	....	2	1	....	....	....	....	....	1	2
Fracture	2	....	....	....	2	1	....	....	....	....	....	....	....	....	....	1	2	1	....	....	....	....	....	1	2
Hand, flesh	16	4	....	....	20	5	....	....	....	11	3	1	....	....	....	....	20	18	....	....	....	....	....	2	20
Carpus and metacarpus, fracture	12	3	....	....	15	7	2	....	....	3	....	....	1	1	....	1	15	6	4	[d] 1	....	1	....	3	15
Fingers, fracture	18	....	....	....	18	6	....	....	....	6	1	....	....	1	....	4	18	10	2	....	....	....	....	6	18
Thigh:																									
Flesh	2	6	....	....	8	1	....	....	....	3	1	1	....	....	....	2	8	5	....	1	....	....	....	2	8
Fracture, middle third	2	....	....	....	2	1	....	....	....	....	1	....	....	....	....	....	2	....	....	2	....	....	....	....	2
Leg:																									
Flesh	4	1	....	....	5	1	....	....	1	2	....	....	....	....	....	1	5	5	....	....	....	....	....	....	5
Fracture	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	1
Ankle joint	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	1
Foot, flesh	11	1	....	....	12	4	1	....	2	5	....	....	....	....	....	....	12	10	....	....	1	....	....	1	12
Tarsus and metatarsus, fracture	8	....	....	....	8	2	....	....	1	3	1	....	....	....	....	1	8	3	3	....	....	....	....	2	8
Toes, fracture	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	1
Total	108	32	9	4	153	50	3	1	4	59	10	4	1	2	1	18	153	93	12	18	1	3	1	25	153

[a] Suicide.

[b] Two of these were suicides.

[c] Discharged on surgeon's certificate of disability for insanity.

[d] Died of tetanus.

C.—*All gunshot wounds (exclusive of deaths not on sick report).*

Character and location of wound.	How received.						Nature of missile.														Disposition.							
		Not in action.																										
	In action.	In line of duty.	Not in line of duty.	Suicidal.	Homicidal.	Total.	Krag-Jörgensen.	Mauser.	Springfield.	Remington.	Winchester.	Revolver.	Shotgun.	Slug.	Explosion of cartridge.	Explosion of powder.	Bursting gun.	Breechblock.	Missile not stated.	Total.	Duty.	Certificate of disability.	Died.	Expiration of service.	Discharged by order.	Dropped.	Remaining last report.	Total.
Head:																												
Flesh	1	1	....	....	....	2	....	....	....	....	....	1	....	....	....	....	....	....	1	2	2	....	....	....	....	....	....	2
Fracture	1	3	1	....	....	5	2	....	....	....	....	1	....	....	....	....	....	....	2	5	....	....	4	....	....	....	1	5
Face:																												
Flesh	3	3	....	....	1	7	2	1	....	....	....	....	1	1	....	....	....	....	2	7	7	....	....	....	....	....	....	7
Fracture	....	1	2	1	....	4	1	....	....	....	....	3	....	....	....	....	....	....	....	4	3	....	1	....	....	....	....	4
Neck	3	1	....	....	....	4	....	1	....	2	....	....	....	....	....	....	....	....	1	4	4	....	....	....	....	....	....	4
Spine, fracture	....	....	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	....	1
Thorax:																												
Nonpenetrating	2	2	....	1	....	5	1	....	....	2	....	2	....	....	....	....	....	....	....	5	4	....	....	....	....	....	1	5
Penetrating	....	5	2	5	2	14	4	....	....	1	....	5	....	....	....	....	....	....	4	14	6	....	3	....	2	1	2	14
Abdomen:																												
Nonpenetrating	1	2	....	....	....	3	1	....	....	1	....	....	....	....	1	....	....	....	....	3	3	....	....	....	....	....	....	3
Penetrating	2	5	1	....	1	9	3	....	....	1	....	5	....	....	....	....	....	....	....	9	1	....	8	....	....	....	....	9
Back and hip, flesh	....	1	4	....	....	5	1	....	....	....	....	2	2	....	....	....	....	....	....	5	4	....	....	....	....	....	1	5
Perineum, genital and urinary organs	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	1
Shoulder, flesh	2	2	3	1	....	8	2	....	....	1	....	5	....	....	....	....	....	....	....	8	8	....	....	....	....	....	....	8
Arm:																												
Flesh	3	1	1	....	....	5	1	....	....	2	....	1	....	1	....	....	....	....	....	5	5	....	....	....	....	....	....	5
Fracture	5	3	....	1	....	9	3	....	....	3	....	1	....	....	....	....	....	1	1	9	1	6	....	....	....	....	2	9
Forearm:																												
Flesh	2	1	1	....	....	4	....	....	....	....	....	1	....	....	1	....	....	....	2	4	3	....	....	....	....	....	1	4
Fracture	3	2	....	....	....	5	1	1	....	....	....	....	....	....	....	....	....	....	3	5	3	1	....	....	....	....	1	5
Hand, flesh	1	16	4	....	....	21	5	....	....	....	....	11	3	....	1	....	....	....	1	21	19	....	....	....	....	....	2	21
Carpus and metacarpus, fracture	....	12	3	....	....	15	7	....	2	....	....	3	....	....	....	1	1	....	1	15	6	4	1	....	1	....	3	15
Fingers, fracture	1	18	....	....	....	19	6	....	....	....	....	6	1	....	....	....	1	....	5	19	10	2	....	....	....	....	7	19
Thigh:																												
Flesh	8	2	6	....	....	16	1	....	....	6	....	3	1	....	1	....	....	....	4	16	12	....	1	....	....	....	3	16
Fracture, middle third	....	2	....	....	....	2	1	....	....	....	....	....	1	....	....	....	....	....	....	2	....	....	2	....	....	....	....	2
Leg:																												
Flesh	3	4	1	....	....	8	1	....	....	1	1	2	....	1	....	....	....	....	2	8	8	....	....	....	....	....	....	8
Fracture	....	....	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	....	....	....	1
Ankle joint	....	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	1
Foot:																												
Flesh	1	11	1	....	....	13	4	....	1	....	2	5	....	....	....	....	....	....	1	13	11	....	....	1	....	....	1	13
Fracture	....	8	....	....	....	8	2	....	....	....	1	3	1	....	....	....	....	....	1	8	3	3	....	....	....	....	2	8
Toes, fracture	....	1	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	1
Total	43	108	32	9	4	196	52	3	3	20	4	60	10	3	4	1	2	1	33	196	126	16	21	1	3	1	28	196

D.—*Gunshot wounds which terminated fatally (exclusive of deaths not on sick report).*

Character and location of wound.	How received.						Nature of missile.								
	In action.	Not in action.				Total.	In action.			Not in action.					Total.
		In line of duty.	Not in line of duty.	Suicidal.	Homicidal.		Remington.	Revolver.	Missile not stated.	Krag-Jörgensen.	Revolver.	Shotgun.	Explosion of powder.	Missile not stated.	
Head, fracture	1	2	1			4			1	1	1			1	4
Face, fracture				1		[a] 1				1					1
Spine, fracture			1			1				1					1
Thorax, penetrating			1	2		3				1				2	3
Abdomen, penetrating	2	5			1	8	1	1		3	3				8
Carpus and metacarpus, fracture		1				[b] 1							1		1
Thigh:															
Flesh			1			[c] 1						1			1
Fracture middle third		2				2				1		1			2
Total	3	10	4	3	1	21	1	1	1	8	4	2	1	3	21

[a] Wounded November 4, 1903. Both maxillæ, palate, vomer, and nasal bones were fractured; died November 5, 1903.
[b] Wounded July 4, 1903; died of tetanus July 21, 1903.
[c] Wounded May 10, 1903. Missile, charge of No. 6 shot. Femoral artery and vein involved near groin; died May 11, 1903, of gangrene acute emphysematous.

E.—*Surgical operations for gunshot wounds.*

Character and location of wound.	Operation.	Result.			Nature of missile.								
		Recovered.	Died.	Remaining last report.	Krag-Jörgensen.	Remington.	Revolver.	Shotgun.	Bursting gun.	Breech block.	Explosion of powder.	Slug.	Missile not stated.
Head, fracture	Trephining; branch of cerebral artery ligated; ball not found			1	1								
Thorax, penetrating	Resection of eighth and ninth ribs for drainage of empyemic cavity, V incision			1		1							
Abdomen, penetrating	Laparotomy: Incision 6 inches long in median line; rent 1 inch in diameter; posterior wall of bladder sutured.		1				1						
Do	Laparotomy: Resection 5 c. m. ileum, anastomosis with Murphy button		1			1							
Do	Laparotomy, exploratory		1		1								
Perineum, genital, and urinary organs.	Incision of scrotum for drainage; three days later, curettage and drainage of resulting fistula.	1											1
Arm, fracture	Amputation at shoulder joint	1								1			
Do	Amputation upper third, circular method	1				1							
Do	Amputation junction upper and middle thirds	1			1								
Do	Amputation junction middle and lower thirds, circular method	1											1
Do	Resection lower third of humerus	1			1								
Carpus and metacarpus, fracture	Disarticulation first finger and second metacarpal, removal of trapezium, trapezoid, and external half of scaphoid, ligation of radial and superficial palmar branch of ulnar artery, and radial extremity of deep palmar arch.		1								1		
Do	Fractured third and fourth metacarpals removed, corresponding fingers amputated.	1											1
Do	Splintered part of fourth metacarpal removed, extensor tendon sutured, incision at entrance of wound, and ulnar artery ligated.	1			1								
Do	Amputation left middle finger, including head of corresponding metacarpal	1			1								
Do	Index finger with fragment of metacarpal removed; third metacarpal wired			1	1								
Do	Carpus shattered, amputation forearm 1 inch above wrist			1					1				
Fingers, fracture	Finger amputation	6		3	3		1	1	1				3
Thigh, flesh	Excision of gangrenous skin and drainage		1					1					
Thigh, fracture middle third	Oct. 25, 1903, comminuted fracture; Dec. 30, 1903, resection		1					1					
Do	Amputation junction upper and middle thirds		1		1								
Thigh, fracture lower third	Wounded Aug. 15, 1902; amputation Sept. 11, 1903	1											1
Leg, flesh	Tract of missile above external malleolus laid open, curettage and excision portion of external saphenous nerve.	1										1	
Leg, fracture	Curettage of necrosed tibia	1											1
Do	Wounded Apr. 6, 1902; bullet located by X ray; removed from head of tibia Jan. 13, 1903.	1					1						
Toes, fracture	Amputation of great toe			1	1								
Total		19	7	8	12	3	3	3	2	1	1	1	8

SANITARY CONDITIONS.

DEPARTMENT OF THE EAST.

The chief surgeon reports that the sanitary condition of the posts is, as a rule, good.

Fort Niagara, N. Y.—An epidemic of typhoid fever occurred at this post in December, 1903, and January, 1904, which was attributed to the use of unsterilized water from the Niagara River in violation of post orders, sterilized water being furnished by the Quartermaster's Department. There were 8 cases, with no death. Test wells have recently been driven at this post with a view of obtaining an adequate and wholesome supply of water.

Fort Terry, N. Y.—The water supply at Fort Terry has been reported as contaminated by sewage and stable excrement, but measures are now under way to remove the causes of contamination.

Fort H. G. Wright, N. Y.—The water supply at Fort H. G. Wright has been greatly improved by the installation of a water still of 1,000 gallons capacity and an additional well.

Fort Du Pont, Del.—The water supplied this post has been found objectionable in odor and taste, and orders have been given for boiling and filtering the water used for drinking purposes. Estimates for furnishing certain buildings with potable water stills have also been forwarded. Drainage in wet weather is exceedingly poor.

Fort Myer, Va.—The water supply has been carefully watched, and measures taken to keep the post filter in working order.

Fort Constitution, N. H.—The water supply at this post and Fort Greble, R. I., has repeatedly been reported as inadequate, being supplied mostly by boat during the summer, and recommendation made in each case that water be piped from adjacent sources. Specifications and estimate for water supply for Fort Greble were forwarded to the Chief of Staff May 7, 1904, while action relative to the water supply of Fort Constitution has been suspended until a site for the new buildings to be erected at that post has been selected.

Fort Slocum, N. Y.—The construction of one double barrack for two companies at this post, which has been approved by the Secretary of War, will no doubt ameliorate the conditions at this station so far as the quartering of recruits is concerned. At present they are quartered in tents.

Fort Preble, Me.—Drainage and sewerage reported as incomplete; much grading about the post is an urgent necessity. New quarters for noncommissioned officers are very much needed. The surgeon and commanding officer recommend the purchase, with a view to control, of an insanitary plot of ground adjoining the reservation. The site with a little grading, etc., would be an admirable location for the officers' quarters, gymnasium, etc., so much needed at this post.

West Point, N. Y.—Sanitary condition very good; sewerage complete and satisfactory; water supply sufficient and of good quality.

Washington Barracks, D. C.—Boiled water used for drinking purposes.

Fort Wadsworth, N. Y.—Health of command very poor, owing to defective sanitary conditions of the casemate barracks occupied by the men. They are poorly lighted, leaky, and generally insanitary. Drainage poor. Reconstruction of post contemplated.

Fort Strong, Mass.—Surgeon recommends that additional barrack building be supplied, as the air space per man is wholly insufficient.

Fort Smallwood, Md.—Buildings at this post are unsuitable for quarters. Water supply is liable to contamination. Water sent from Fort Howard three times a week.

Fort Revere, Mass.—Water from an artesian well supplying the post was pronounced unfit for drinking purposes and water is now obtained from the Hingham waterworks.

Fort Porter, N. Y.—Guardhouse is too small.

Fort Mott, N. J.—Buildings largely temporary and inadequate.

Fort Monroe, Va.—Public buildings not recommended for removal in good sanitary condition. The casemates occupied as quarters need more sunlight, heat, and ventilation. In the opinion of the surgeon nothing short of removing the entire structure and replacing it with buildings of modern design will ever remedy this matter to the entire satisfaction of all concerned. Water from the mains is of doubtful quality. The drinking water furnished by the condenser is excellent, but somewhat limited in quantity.

Fort McHenry, Md.—Quarters occupied by troops are very old and dilapidated and are very hard to keep clean; unprovided with sufficient ventilation; number of windows insufficient in many rooms for proper lighting; bathing facilities improvised; plumbing in detached water-closets defective.

Fort Hamilton, N. Y.—Some of the buildings in bad repair and others unsightly as well. None of the barracks is properly heated.

Fort Carroll, Md.—The water is reported as unfit for use and recommendation is made that sufficient water be provided to supply the demand or a small distilling plant be installed.

Fort Andrews, Mass.—The surgeon notes that the frame buildings are insufficient to house the men, and recommends that suitable structures be erected.

Fort Jay, N. Y.—Sewers in good repair, but owing to scarcity of water are not flushed out. Water supply is absolutely inadequate for domestic purposes.

DEPARTMENT OF THE GULF.

The chief surgeon reports that the health of the troops and the sanitary conditions generally have been good during the year. There have been very few cases of typhoid fever reported during the period. The source of infection of the seven cases occurring at Camp G. H. Thomas for the most part has been traced to the drinking of unboiled water from creeks and branches during the marches and while the troops were on duty at the target range at Waco, Ga. The patients suffering from this disease were isolated, bedding, excreta, etc., disinfected, the camp being kept in a sanitary condition. It is probable that some of these cases originated at Camp Thomas from the use of water from Chickamauga Creek. All possible precaution to prevent the unnecessary use of this water was taken and to render it harmless where its use was necessary. No death occurred from typhoid fever at this station.

Two cases of typhoid were reported from Key West Barracks, Fla., with one death. The source of infection has been traced to the city of Key West, where, it is reported, the disease has been quite prevalent. The patients were isolated and sanitary measures adopted to prevent the spread of the disease.

The following are extracts from the sanitary reports of the posts in the department:

Fort Caswell, N. C.—Drainage reported as fair and recommendation made that necessary filling in be done as soon as practicable. Heating of officers' quarters defective; a central heating apparatus is suggested. Water supply defective. New quarters recommended for noncommissioned officers. The commanding officer was directed to submit estimates for carrying into effect the recommendation of the surgeon.

Fort Barrancas, Fla.—Walls and ceilings of several of the squad rooms are damp and covered with mold. Closet and urinal in bathroom are in an unsatisfactory condition. Barracks are poorly lighted and ventilated, old and damp and the plumbing is worn; they are almost unfit for occupancy. Lavatory facilities urgently required.

Fort Fremont, S. C.—The housing of the command is defective, most of the buildings being temporary. Drainage has been improved, but considerable work will be required to make it good.

Key West Barracks, Fla.—Insufficient barracks for men and officers; insufficient amount of fresh water.

Fort McPherson, Ga.—Buildings are in good sanitary condition and police of grounds has been excellent. The plumbing is old but carefully watched and repaired when necessary.

Fort Screven, Ga.—The surgeon recommended that old style of barracks be done away with, and that numerous drains and ditches throughout the reservation be filled and replaced by a system of superficial drains.

Fort Moultrie, S. C.—Sewerage system rendered useless by insufficient water supply; no proper sinks for use when water supply gives out. Trough latrines have been asked for.

Camp G. H. Thomas, Ga.—Screens recommended for all mess rooms and kitchens to exclude flies. Buildings are poor shelter from cold in winter. The Chickamauga Creek water used for cooking and washing dishes is a dangerous source of typhoid fever.

DEPARTMENT OF THE LAKES.

The sanitary conditions generally in this department are reported as good.

Columbus Barracks, Ohio.—The surgeon reports the city water very hard and should be boiled before being used for drinking purposes.

Rock Island Arsenal, Ill.—The hospital building is a temporary frame building and is now in a very bad condition and almost untenable.

Fort Thomas, Ky.—Water supply is ample, but in view of possible contamination water to be used for drinking purposes is first boiled.

DEPARTMENT OF THE MISSOURI.

The chief surgeon of the department reports that the imminence of an epidemic of typhoid fever at Fort Leavenworth, Kans., has been the most menacing health problem of the year. Despite the various sanitary precautions taken and the drastic measures recommended by the surgeon and enforced by the commanding officer, typhoid fever has remained endemic practically throughout the entire year at this post. The source of infection is undoubtedly to be found in the impure water supply, the water furnished being, according to the post surgeon, only a dilution of the post's own sewage. The new water-purification plant was reported in March as almost completed; whether it has yet been put in operation this office has not been advised. The sewage-disposal plant that has been in process of construction for some months past has not yet been tested. Meanwhile the drinking of sterilized water has been as stringently enforced as could be effected by repeated warnings and orders and the court-martialing of detected transgressors. During the year 47 cases of typhoid fever have been admitted to sick report at Fort Leavenworth, new cases having appeared in eleven out of the twelve months of the year.

Thirty-six additional cases of typhoid from other posts in the department have been reported during the year. Of the cases occurring at Jefferson Barracks, Mo., nine appeared during the month of August among troops recently returned from target practice. It was the opinion of the surgeon that the disease was contracted at the Arcadia rifle range. The water supply at Jefferson Barracks, however, while not so impure as at Fort Leavenworth, is yet regarded as unsafe for drinking purposes unless boiled. At the instance of the former surgeon, Major Raymond, the sinking of an experimental tubular well, in the hope of securing a potable water supply for the garrison, was begun in February. Report as to the success of the venture has not been communicated to this office.

Of the 18 cases of typhoid fever which were reported from Fort Riley, Kans., 10 developed in October among the troops assembled for the fall maneuvers. The board of medical officers appointed to investigate the origin of the outbreak reached the conclusion that the source of infection was not at the post, but that the disease had been contracted through drinking water from wells while troops were on recent practice marches.

Four out of the total of 83 cases of typhoid fever in the department have resulted fatally.

While the number of pneumonia cases was not so large by four this year as in the preceding, the death rate from this cause has been the highest reached in years. More than one-third of the cases, 16 out of 47, have proved fatal. The disease has not been confined to any one post or to any particular month, but has appeared among various garrisons and at varied seasons.

An epidemic of measles occurred at Fort Leavenworth in March and one at Fort Riley, Kans., and Fort D. A. Russell, Wyo., in April.

Not only at Fort Leavenworth and Jefferson Barracks, but at Forts Meade, S. Dak., Robinson and Niobrara, Nebr., has the water supply been a matter for comment in certain of the monthly sanitary reports. The purity of the water at Forts Meade and Robinson has not been questioned, but the supply at Fort Meade has been pronounced wholly inadequate to cope with a fire in case such an emergency should arise, while at Fort Robinson a scarcity, apparently due to insufficient capacity of the pumping apparatus, was reported last July. It was understood that an effort would be made to remedy the shortage at Robinson, but so far no action has been taken toward affording increased security at Meade. At Niobrara, Nebr., the danger is one of possible contamination rather than actual existing impurity. The several springs which constitute the source of this post's supply are not so protected as to preclude the entrance thereinto of organic matter.

The subject of inadequate guardhouse facilities has been agitated throughout the greater part of the year at Forts Crook and Leavenworth and Jefferson Barracks. The crowding of prisoners and consequent insufficient air space, the lack of bathing facilities, and the absence of water-closet conveniences were the reported insanitary conditions existing at the guardhouses of these posts. At Fort Leavenworth the transfer of garrison prisoners to new quarters in February somewhat rectified the unwholesome state of affairs, while at Jefferson Barracks it is understood that either the present guardhouse will be enlarged or a new one erected. The proposed utilization of the Federal prison at Leavenworth for the incarceration of general military prisoners would appear to be a desideratum as affording permanent relief from congested conditions that have obtained at these several posts.

The barracks available for quartering troops at Jefferson Barracks are reported as frequently taxed beyond their capacity consistent with proper sanitation.

In the opinion of the respective surgeons the barracks at Forts Meade and Niobrara are poorly equipped in point of ventilation. Steps looking to the remedy of this evil at Fort Meade have been taken It would seem that the health of the command at Fort Niobrara is still further jeopardized during the summer season by the barracks being so ramshackle as to render it impracticable, in the opinion of the commanding officer, to make these buildings proof against invasion by flies and mosquitoes.

The clouds of dust raised by the high winds at Fort Robinson have been a source of a great deal of annoyance among the members of that garrison. The inhalation of the dust gives rise to numerous cases of inflammation of the nose, throat, and bronchi.

Fort Niobrara, as was the case in each of the two preceding years, has the best health record of all posts in the department, only 1.7 per cent of the command having been rendered noneffective by sickness and injuries.

Fort Meade has had the highest percentage of sickness, 5 per cent. This, however, may not be a just comparison, inasmuch as this post has been in the department only six out of the twelve months.

As in former years the venereal cases have outnumbered every other form of disease. It is interesting, however, to note that, as compared with the preceding year, the number of venereal infections were lessened by 523, the percentage of sickness from this cause falling from 24.7 per cent to 14.2 per cent of the average strength of the command for the respective years. The decrease in percentage of malarial fever cases has been still further emphasized in the year just ended, 12.6 per cent, 8.2 per cent, and 5.9 per cent are the figures for the last three years. This improved showing is attributable no doubt to careful screening of post buildings and to incessant warfare upon the mosquito and his breeding places.

Congress appropriated $40,000 for the construction of a new hospital at Fort Riley. A new and modern building is much needed at this post, as the present hospital is reported as too small, obsolete in plan, unsatisfactory in ventilation, and without a suitable operating room. As the amount of the appropriation is much too small to provide a new hospital commensurate with the size of this large post, it is proposed to erect the building by sections, utilizing the present structure in the general plan.

DEPARTMENT OF DAKOTA.

The chief surgeon reports as follows:

The health of the troops in the department during the year has been very good, showing an improvement at nearly all posts over most of the years for the past decade.

Fort Assinniboine, Mont.—No expenditure for repairs to the hospital was authorized and this office was informed that it was not deemed advisable to repair the present structure only as absolutely necessary for the comfort of the sick, for the reason that funds would be asked for in the annual estimate for the year ending June 30, 1905, with a view of securing an appropriation from Congress for the erection of a new hospital building. The hospital building is unsuitable and inadequate for the requirements of the present command.

Fort Harrison, Mont.—The ratio per 1,000 for admissions to sick report, discharges, deaths, and men constantly sick was lower at this post than at any other in the department.

Fort Lincoln, N. Dak.—The post has water and sewer systems. The sanitary condition was the cause of no unusual complaint, although the water from the water system of the post is not potable. Under the existing circumstances water for drinking and culinary purposes is obtained by purchase at Bismarck and is secured from the Missouri River.

Fort Snelling, Minn.—The hospital at Fort Snelling has been in good condition during the year but at times, owing to limited space, it was inadequate for the best accommodations required. To enlarge the hospital an item of $50,000 was included in the annual estimate to Congress for the fiscal year ending June 30, 1905. The amount appropriated appears to be specified as $35,000 to enlarge the hospital at Fort Snelling, Minn.

DEPARTMENT OF TEXAS.

The chief surgeon reports that public buildings and grounds generally are in good condition except at Forts Brown and Clark and Jackson Barracks. At Fort Brown, Tex., the surgeon recommended that an inspector be sent to determine the fitness of the barracks for occupancy, and reported the buildings as old, out of repair, and the dormitories as not furnishing sufficient air space per capita for the men.

After an inspection by the department commander and the Chief Quartermaster the latter reported the buildings to be in a condition far from warranting their condemnation, and that sufficient air space per capita may be had by removing the ceilings and thereby adding the air space in the lofts of the buildings. At Jackson Barracks, La., the surgeon reports the remodeling of post and that this will correct existing insanitary condition of buildings. At Fort Clark, Tex., the surgeon reports the public buildings as old, crumbling, and in need of repair, but states that the cost of repairs would be so much as to constitute wasteful extravagance, and recommends that the post be either rebuilt or abandoned, the commanding officer being of the opinion that the buildings are not worth cost of repairs and that a new post should not be built anywhere in the vicinity. The surgeon at Fort Reno, Okla., reported the barracks occupied by Company G, Thirtieth Infantry, as inadequate, but that the proposed additions will remedy the defect mentioned.

At Fort Sam Houston, Tex., ground is now being broken for extensive additional barracks and quarters.

In the last annual report mention was made of unsatisfactory sewerage conditions at Jackson Barracks, La., and Fort Ringgold, Tex. The former will be remedied by remodeling of the post, and the latter was in the most part corrected by extension to sewer system completed August 19, 1903. During the year a sewer system has been installed at Fort Brown, but all house connections have not yet been made, waste water from officers' line and hospital still emptying into lagoon in rear of officers' quarters. Action is now pending on estimates for a sewer system at Fort McIntosh, Tex. Drainage system at Fort Reno is reported obsolete, but disposal of wastes satisfactory. Disposal of wastes throughout the department reported as satisfactory.

The water supply is reported as generally good and sufficient throughout the department except at Fort Bliss, Tex., where the surgeon reports an insufficient reserve for emergencies, but quantity adequate for ordinary needs. At Fort Brown, from where similar report of insufficiency has been made, contract has been made for the erection of a new 50,000-gallon steel tank. Distilled water is used for drinking purposes at posts having distilling plants or ice machines.

With a view to the prevention of malaria, barracks and quarters have been screened, pools of standing water drained and filled in or treated with petroleum, and during mosquito months men compelled to sleep under mosquito bars.

The number of admissions for venereal diseases continues to be large, there being 619 during the year out of a total of 4,127 for all causes, equal to a fraction over 14 per cent of the total admissions, a part of which, at least, can be attributed to the number of cases discovered and put under treatment as a result of the regular physical inspections carried on in this department, as without these inspections many cases not borne on sick report would remain concealed and receive only clandestine treatment by the sufferers. The good results of these inspections may be inferred from the total number of admissions, 619, and the total number of discharges for disability on account of venereal diseases, 11—less than 2 per cent becoming finally unfit for the service.

Several sporadic cases of typhoid fever occurred at different posts in the department, and 3 at Fort Brown in June, 1904, with no death from that cause. The water supply is reported as the source of infection at Fort Brown. Proper precautionary measures have been taken and no further cases have developed.

DEPARTMENT OF THE COLORADO.

SUMMARY OF SANITARY REPORTS FOR THE YEAR.

Fort Apache, Ariz.—A new sewer system is being installed. Water is obtained from river; boiled before drinking. General sanitary conditions reported as good.

Fort Douglas, Utah.—Public buildings and grounds in generally good condition; many of the outbuildings in bad repair.

Fort Duchesne, Utah.—Water supply abundant, quality fair; boiled before using. Sanitary conditions good.

Fort Grant, Ariz.—Public buildings in poor state of repair; water supply insufficient.

Fort Logan, Colo.—All sanitary conditions reported as good.

Fort Washakie, Wyo.—All buildings very much in need of repair. Barracks overcrowded. Bathing facilities inadequate. No sewerage system.

Whipple Barracks, Ariz.—Buildings old and in poor repair. New buildings in course of construction. A new 12-bed hospital has been authorized for this post. Sewer system old and unreliable. Dry earth latrine system in general use.

DEPARTMENT OF CALIFORNIA.

The chief surgeon reports sanitary conditions as satisfactory with few exceptions. There has been 1 case of typhoid fever at Fort McDowell, 1 at depot of recruits and casuals, and 3 at the Presidio, apparently imported from the East. An isolation ward has been completed at Alcatraz Island, the hospital at Fort Rosecrans has been occupied, and satisfactory progress is being made on the hospital at Fort McDowell, ground having been broken April 27, 1904. Overcrowding of barracks at Company of Instruction Hospital Corps No. 2 and at Fort Baker has been reported during the year and satisfactorily corrected. The water supply at Benicia Barracks is being improved by the erection of a large storage reservoir. Other sanitary matters in the department are satisfactory.

The following extracts are taken from the sanitary reports of posts in the department:

Ord Barracks, Cal.—Barracks and guardhouse too small. Hospital completed in October, 1903, too small for needs of the post, but in view of the fact that the post of Ord Barracks is a cantonment, no funds will be expended there for the construction of a large permanent hospital until the status of the garrison is distinctly established.

San Diego Barracks, Cal.—City water used, and is of fairly good quality; reported as alkaline and the cause of some mild cases of diarrhea during August and September, 1903.

Presidio of San Francisco, Cal.—The surgeon reports that sanitary conditions are satisfactory.

Fort McDowell, Cal.—Overcrowding of barracks noted at different times during the year. June 30, 1904, the surgeon reports that each organization is now quartered in barracks without crowding.

Fort Miley, Cal.—The sanitary conditions are reported as good.

Fort Mason, Cal.—Sanitary conditions are satisfactory.

Benicia Barracks, Cal.—Public buildings are old, requiring constant repairs, more or less. Sewerage and plumbing, including the water system and bathrooms in the barracks, require repairs and general overhauling. The water supply is at present defective. The tank into which the water from the Benicia waterworks is pumped for distribution shows a deposit of mud, algæ, fish, and other débris of vegetable matter from 1 to 2 inches each month. No facilities are provided to keep the tank free from the impurities. Adoption of some kind of modern filter is recommended.

Fort Baker, Cal.—The barracks of the Thirty-Second Company Coast Artillery are overcrowded; the surgeon recommends that at least 20 men be removed from this building.

Alcatraz Island, Cal.—Barracks occupied by enlisted men very much overcrowded. The casemates can not be properly ventilated and are damp and unfit for quarters. The barracks proper are old and poorly ventilated.

DEPARTMENT OF THE COLUMBIA.

The sanitary condition of the posts in this department is satisfactory as a rule. The following exceptions are noted:

Old buildings with defects as to ventilation are reported at Boise Barracks, Vancouver Barracks, and Fort Walla Walla. These are being remedied by new construction under way or proposed. Temporary buildings were occupied by the commands at Fort Worden for a portion of the year, but new barracks are now complete. The new 6-bed hospital at Fort Casey is reported as of inadequate capacity for the strength of command and also as lacking facilities for bathing. Fort Flagler also reported insufficient hospital accommodation and a 12-bed structure has been allowed. The troops at Fort Ward are in a temporary building. At Skagway, about to be abandoned, the houses are rented and not arranged to the best advantage. The grounds are all reported as well policed.

The surgeon at Boise Barracks recommends construction of sewer for barracks and connection with city system, but in view of rebuilding of post, as a temporary expedient, dry-earth closets have been asked for. Vancouver Barracks reports trouble with frequent blockage of sewer and the commanding officer states that a new system in connection with construction of post is under consideration. Fort Walla Walla has a recommendation for modern closets for barracks and connection with sewer system, which is disapproved, as the buildings are so old that they will have to be torn down and replaced if the post is to be continued. The surgeon at Fort Egbert was authorized to expend mineral oil to cover swamp in neighborhood to prevent the breeding of mosquitoes.

The water supply has been reported as bad at Fort Casey. A permanent supply for this post has been located and steps are now being taken to render this supply available as soon as possible. Forts Flagler and Worden report equally bad conditions. At Fort Flagler the plumbing is in constant need of repairs owing to corrosive action of water. Boards convened for the purpose of securing a suitable supply have recommended obtaining water from the Olympic Mountains, there being no nearer permanent source of pure water for either of these posts. Fort Stevens has also difficulties to overcome in this regard, but recent experimental wells may solve the problem. The surgeon at Fort Egbert states that the well from which water is obtained is liable to infection from drainage of post and favors the use of a spring in the hill behind the quartermaster's stables.

The clothing is reported as good and suitable to the climatic conditions.

Habits of the men have been stated from good to excellent.

Reports show that the food supply has been ample and well prepared. Fort St. Michael reports an absence of fresh vegetables from November, 1903, until opening of navigation, June, 1904.

The surgeon at Vancouver Barracks recommends as a sanitary measure the establishment of a steam laundry for the post, to insure greater cleanliness and less liability of introduction of disease from without.

PHILIPPINES DIVISION.

The chief surgeon reports:

The aggregation of troops in larger garrisons, carried out last year, has been continued; the concentration resulting in the reduction of the number of garrisoned stations from 126 on June 17, 1903, to about 112 at the present date, many of these being temporary stations of scouts in the field. The gradual change from camps to permanent posts with barracks, quarters, and hospitals of durable construction is placing the troops under approximately normal sanitary conditions and enhances the amelioration of service in the Philippines, because of the larger amount of social life, betterment of supplies on account of accessibility of the new posts, improved condition of water supply, drainage, and protection from damp ground and from mosquito resorts.

Malaria has declined largely through the universal use of mosquito bars and the prophylactic measures now general. Typhoid fever, always noticeably rare in these islands, has seemed in the present year to be almost eliminated. Dysentery has decreased, especially where there are improved conditions of garrison life, absence of hard field service, the free supply of ice and distilled water, and enforced abstinence from native fruits and uncooked vegetables. In a general way it may be said that the necessary enforcement of the rigid rules to stamp out cholera has pointed to the proper means for eliminating dysentery also. During the period covered by this report there have been 18 deaths from malaria, or 7.26 per cent of total deaths; nine have died of typhoid fever, or 3.63 per cent of total deaths; while there have been 27 deaths from dysentery, representing 10.89 per cent of the total mortality.

Some of the worst outbreaks of beriberi have been found to originate where the native scouts have been quartered in old, half-decayed buildings. It is without doubt very unwholesome to sleep on the ground, as these natives often do, crowding together closely in old convents or other buildings, where the ground, being mostly damp and unvisited by the sun, gives out exhalations from the silt of past occupation.

Ten native scouts succumbed to beriberi during the past year; there was no death from this cause among the white troops. Out of much obscurity that hangs around this disease, there may be evolved two or three working theories which give good promise toward elimination of the disease: (1) It seems to be peculiarly a native disease; (2) it is found that a generous diet, such as afforded by the full army ration, is useful in promoting a cure, even though it be doubtful whether the rice component has any bearing on the causation of the disease; (3) it seems to be a "place" disease. Numerous instances have occurred where removal of the command has been followed by disappearance of the disease. The main indication, indeed, toward elimination of beriberi appears to be a complete change of locality to a clean, dry, and well-ventilated building.

Active service has obtained in the Department of Mindanao, where there have been many important expeditions and frequent practice marches, with medical officers and hospital corps men accompanying. The cessation of field operations in the Department of the Visayas has resulted in a general state of quiet at most of the posts. In the Department of Luzon very little "hiking" has been performed outside the service of the native scouts.

The hospital buildings at the various posts vary in character according to whether they are rented buildings, had recourse to in emergency, or temporary structures built by the United States Government to tide over a present want, or the buildings of tropical design—i. e., well raised from the soil, lightly built, spacious and airy—pertaining to the posts lately built, supposed to be permanent. Except those last mentioned, the buildings used as hospitals are mostly faulty in construction, location, and arrangement. Many of them are built of nipa and native materials that are short lived, and these have already lapsed into decay. Many of them have no suitable rooms for operative work, laboratory work, or for protecting the necessary supplies. It has been the practice as far as possible to utilize the better adapted hospitals of the new posts as "base hospitals" for the smaller commands, and cases requiring surgical or medical attention are frequently transferred from the outlying posts. The hospitals at Iloilo and Zamboanga serve in this capacity for the Departments of the Visayas and Mindanao, respectively, offering good geographical advantages, and many cases can be treated in these that otherwise would have to be transferred to Manila. The First Reserve Hospital, Manila, and the Convalescent Hospital, Corregidor Island, constitute places of refuge for the more difficult cases of sickness. Most of the important surgical operations are performed at the First Reserve Hospital. Infectious diseases are treated in Hospital No. 4, Manila.

There has been a marked improvement in quarters in some stations, while in many others the former conditions of rented buildings, etc., have continued to make the habitations of officers and soldiers very unsatisfactory. This condition is expected to be relieved in a measure by the construction of the new posts; there are still many of the old makeshifts, however, and it is found that little or nothing will be done for the repair of the buildings of a post while the land is occupied with an uncertain tenure; hence the importance of expediting the perfecting of leases and establishment of titles. The supply of clothing has been satisfactory in character and no marked changes are necessary in this respect.

The dry-earth system is used for the disposal of excreta. The pans, as also the garbage cans, are daily emptied into the sea, or the contents are buried in the earth, or else removed to a distant spot in a favorable location, mixed with garbarge, covered with waste straw, coal oil, and other combustible materials, and burned.

Orders require all drinking water to be boiled or distilled; and it is generally distributed in galvanized-iron cans, covered. Many cases of diarrhea and dysentery can be traced to disobedience of orders in this respect.

Satisfactory reports have been received as to the quality and quantity of the food supply and its preparation. The discontinuance of the routine issue of the emergency ration by General Orders, No. 72, Division of the Philippines, series 1903, has further tended to improve the conditions of subsistence of troops. On the other hand, the new scout ration is hardly an advance, inasmuch as it diminishes the bread and rice portions without a sufficient increase of the meat constituents. I would recommend that the scout ration should be made equal to that of the white troops. A good many efforts have been made to increase the scout ration, and General Orders, No. 62, current series, War Department, was supposed to be quite an improvement. It was only a step, however. The scouts are kept hard at work, and are likely to continue to be so used for a long time to come. As one very practical inspector has lately said in one of his careful reports, "If they are expected to do a man's work, they should have a man's full ration." From my own observations, I entirely agree with Major Tutherly's opinion.

The furnishing of ice to organizations of the Army, where rations are issued in kind, has had most satisfactory results. Similarly, the service and supplies of hospitals have been improved by Circular No. 10, War Department, series 1903, authoring the purchase of ice from the fund of 40 cents per diem appropriated for the special diet of enlisted patients in hospitals who are too sick to subsist on the army ration. Also, where the 40-cent fund has proved insufficient, authority has been granted for purchase, from the medical department appropriation, of ice for the use of hospitals. While it is desired to avoid any extravagance in this respect, it is felt that there is no one agent that is productive of so much comfort and improvement of the diet of the sick as a plentiful supply of ice.

The following is an extract from a report submitted by the sanitary inspector, Headquarters Philippines Division: "During the year much work has been done along the quartermaster's water front in making systematic inspections of all transports, launches, lorchas, etc. In this manner four cases of cholera and four of smallpox have been detected and immediately isolated, and the proper cleansing and disinfecting measures instituted. The last case of cholera coming under the attention of this office occurred in September, last; of smallpox, in May, 1904. Owing to the fact that a considerable number of cases of smallpox developed in various quarters of the city about this time, general vaccination of civilian and native employees was begun, and approximately fifteen hundred inoculations made during May and June just past. No further case of smallpox has occurred.

"The two distilling plants operated by the quartermaster's department are doing satisfactory work. The daily capacity is about 10,000 gallons, supplying an ample quantity of good drinking water. Bacteriological examinations have been made at intervals, always with satisfactory result.

"During the year special efforts have been made to inspect all interisland transports on their return to this port from each trip, paying particular attention to the steward's department and the facilities for proper care and transportation of enlisted men. Many of these boats are chartered by the quartermaster's department, consequently there has been considerable difficulty in obtaining the standard of cleanliness to be desired. The quartermaster in charge of water transportation has rendered every assistance: several ships which remained filthy after repeated protests have had their charters withdrawn. The result is that while much improvement can still be made, much has already been accomplished."

PORTO RICO.

Henry Barracks.—The surface drainage is poor. Water from mountain streams pure and abundant. Other sanitary conditions good.

San Juan.—Water supply is sufficient in quantity and of generally good quality. It was recommended that the orders at present in force in regard to boiling all drinking water be continued.

HAWAII.

No unsanitary condition has been reported during the year.

CUBA.

Sanitary conditions generally satisfactory. The last troops were withdrawn from this island in February, 1904.

CHINA.

A severe outbreak of typhoid fever in the command was attributed, the earlier cases to drinking unauthorized water from polluted sources, the later cases to carriage by flies from infected earth closets. Water supply used for drinking and cooking purposes is condensed.

SURGICAL OPERATIONS.

During the calendar year 1903, 3,428 surgical operations were reported by medical officers as having been performed by them on officers and enlisted men of the Army. The following tabulation shows in detail the operation, disease, or injury for which operation was done and the result in each case:

Operation.	Disease or injury.	Cases.	Recovered.	Died.	Remarks.
Removal of tumors, enucleation	Angioma 1, chalazion 1, cystic 13, dermoid 1, fibroma 7, gumma 1, lipoma 12, myoma 1, neuroma 1, papilloma, 1, polypus 1, sarcoma 3, sebaceous 37, osteoma 2, not stated 3.	85	85	....	
Removal of foreign bodies:					
Bullet and shot	Shot wounds	21	21	....	
Miscellaneous substances		1	1	....	
Opening of abscesses, incision	Injury 5, disease 253	258	255	3	Death from septicemia 3.
Operations on the eye:					
Excision diseased appendages	Pterygium	34	34	....	
Iridectomy	Traumatic cataract 2, glaucoma 1.	3	3	....	
Keratectomy	Keratitis	1	1	....	
Excision of eyeball	Injury 2, staphyloma 1	3	3	....	
Curettage	Trachoma	1	1	....	
Operations on the ear:					
Opening mastoid cells	Otitis	3	3	....	
Paracentesis	do	3	3	....	
Operations on the nose:					
Reparative	Deformed 1, deflected septum 3.	4	4	....	Paraffin method for deformity.
Removal of diseased parts	Rhinitis 6, catarrh 1, ozena 1.	8	8	....	Exostosis 5, turbinated bone 2, cartilage 1.
Removal of polypus		1	1	....	
Adenectomy	Rhinitis	2	2	....	
Operations on the mouth:					
Tonsillotomy	Tonsillitis 15, hypertrophy 8.	23	23	....	
Excision of uvula	Disease not stated	1	1	....	

Operation.	Disease or injury.	Cases.	Recovered.	Died.	Remarks.
Operations on arteries, ligation	Shot wound 1, incised wound 2.	3	2	1	Ulnar 1, temporal 1, common carotid, death 1.[a]
Operations, veins:					
Obliteration	Varicocele	220	220	....	High 149, open 8, scrotal 4, excision 14, not stated 45.
Do	Varicose veins	28	28	....	Ligation 4, excision 11, excision and ligation 7, not stated 6.
Operations on nerves:					
Excision	Shot wound	1	1	....	Part of saphenous.
Incision	Contusion	1	1	....	Adhesion of spiral.
Operations on respiratory organs:					
Tracheotomy	Self-inflicted incised wound.	1	......	1	Died within 8 hours of hemorrhage.
Thoracentesis	Beri-beri 1, pleurisy 13, pneumonia 4, empyema 5, pulmonary abscess 1, hepatic abscess 2, incised wound 1.	27	20	7	Death beri-beri 1, septicemia 1, empyema 1, pneumonia 1, pleurisy 1, hepatic abscess 2.
Operations on digestive organs:					
Dilatation	Esophageal stricture	2	2	....	Burn by lye in childhood.
Gastrorrhaphy	Incised wound stomach	1	1	....	
Laparotomy	Shot wound 3, cholelithiasis 1, intestinal obstruction 2.	6	......	6	Death, shot wound 3, cholelithiasis 1, intestinal obstruction 2.
Colostomy	Peritonitis	1	......	1	
Appendectomy	Appendicitis	106	100	6	Death, peritonitis 4, tuberculosis of intestines 1, tuberculosis 1.
Cholecystotomy	Cholelithiasis	1	1	....	
Herniotomy	Inguinal 148, ventral 8, umbilical 2, femoral 1.	159	158	1	Death from tetanus after operation for ventral hernia.
Paracentesis	Dysentery, ascites	1	......	1	
Coccygectomy	Carcinoma	1	......	1	
Incision and drainage	Ischio-rectal abscess 36, hepatic abscess 16, fistula in ano 48, rectal ulcer 16, fissure of anus 5.	121	115	6	Death, hepatic abscess 6.
Aspiration	Hepatic abscess	5	4	1	
Closure of sinus	Hepatic abscess	1	1	....	
Obliteration	Hemorrhoids, internal 68, external 139, mixed 37.	244	244	....	Excision 53, ligation 29, excision and ligation 14, clamping 79, not stated 69.
Operations on lymphatic organs: Incision and extirpation.	Adenitis, venereal 543, nonvenereal 91, traumatic 15.	649	649	....	
Operations on urinary organs:					
Urethrotomy	Venereal 16, nonvenereal 4.	20	20	....	External 3, internal 17.
Nephrotomy	Urinary calculus	3	3	....	
Lithotomy	Vesical calculus	1	1	....	
Nephropexy	Displaced kidney	1	1	....	
Incision	Urethral fistula 3, perinephritic abscess 1, rupture of bladder 1.	5	4	1	Death, rupture of bladder, peritonitis.
Operations on generative organs:					
Circumcision	Venereal 124, nonvenereal 373.	497	497	....	
Amputation penis	Chancroid	1	1	....	
Castration	Traumatic orchitis 1, varicocele 1, tuberculosis 1, hydrocele 1.	4	4	....	Left testicle 4.
Incision	Orchitis 3	3	3	....	
Closure of fistula	Perineal fistula, gonorrheal.	1	1	....	Tract opened.
Obliteration	Hydrocele, injury 3, disease 34.	37	37	....	Tapping 12, excision 12, incision 5, injection 2, not stated 6.

[a] Stab wound neck, aneurism, attempt to ligate common carotid artery and internal jugular vein.

Operation.	Disease or injury.	Cases.	Recovered.	Died.	Remarks.
Operations on bones:					
Trephining	Fracture skull 4, osteomyelitis femur 1.	5	3	2	Death, cerebral hemorrhage 2.
Excision	Shot wound, humerus 1, rib 1, femur 1.	3	2	1	Death, shock shot wound femur.
Laminectomy	Fracture spine	1	1	....	
Removal of portions	Injury 27, disease 11	38	38	....	Necrosed 25, fractured fragments 7, exostosis 6.
Union of bone	Injury	13	13	....	Wired 9, coaptated 4.
Incision	Periostitis 5, osteomyelitis 1.	6	6	....	
Operations on joints:					
Reduction of dislocations	Injury	26	26	....	Shoulder 20, elbow 4, hip 1, knee 1.
Forcible motion	Ankylosis	3	3	....	Knee joint 2, elbow joint 1.
Incision	Arthritis	4	4	....	Wrist 1, knee 2, ankle 1.
Aspiration	Injury 3, synovitis 5	8	8	....	Knee joint.
On cartilage	Injury 2, disease 5	7	7	....	Removed 6, anchored 1.
Operations on limbs, amputation:					
Shoulder joint	Shot wound 1, bolo wound 1.	2	2	....	Primary 1, secondary 1.
Arm	Shot wound 3, campilan 1, kris 1.	5	5	....	Primary 4, secondary 1.
Forearm	Shot wound	1	1	....	Primary.
Part of hand	Shot wound	1	......	1	Death, tetanus.
Fingers	Shot wound 13, other injury 33, disease 8.	54	54	....	
Hip joint	Traumatic osteomyelitis	1	1	....	
Thigh	Shot wound 2, injury 3	5	4	1	Primary 2, secondary 3, death, shot wound, hemorrhage.
Leg	Injury	3	3	....	Primary 2, secondary 1.
Toes	Shot wound 1, injury 4, deformity 8.	13	13	....	
Operations on muscles, fasciæ, and tendons:					
Tenotomy	Injury 3, disease 4	7	7	....	
Myotomy	Injury 1, disease 6	7	7	....	
On appendages	Injury 1, disease 7	8	8	....	
Operations on skin, etc.:					
Closure of wounds	Shot wounds 2, incised 5	7	7	....	
Removal, nails	Ingrowing nails	223	223	....	
Removal, skin	Keloids 3, shot wound 1	4	3	1	Death, acute gangrene following shot wound.
Incision	Cellulitis 27, carbuncle 27, furuncle 289, whitlow 26.	369	368	1	Death, multiple carbuncle.
		3,428	3,385	43	

NOTE.—A number of operations not included in the above table were performed on discharged soldiers, general prisoners, employees of the Quartermaster's Department, and other civilians admitted to army hospitals for treatment. Among these operations were 5 excisions of the eyeball, 1 extraction of cataract, 1 ligation of tibial artery, 1 ligation of brachial artery, 8 for varicocele, 1 tracheotomy, 5 thoracentesis, 18 herniotomy, 11 appendectomy, 5 laparotomy, 2 lithotomy, 2 urethrotomy, 1 prostatotomy, 31 circumcisions, 10 for hydrocele, 1 amputation penis, 1 castration, 4 trephining, 7 removal of bone, 1 amputation shoulder joint, 2 amputation of arm, 2 amputation of thigh, 10 amputation of leg, 1 amputation of foot, and 15 amputation of fingers and toes.

NOTE.—Number of surgical operations on soldiers reported 3,428, of which 386 were necessitated by injury and 3,042 by disease.

From the interesting report on the surgery of old men by Maj. William H. Arthur, surgeon, U. S. Army, attending surgeon, United States Soldiers' Home, Washington, D. C., the following extracts were taken:

The hospital of the United States Soldiers' Home offers unusual opportunity for observing the effect of old age, with its accompanying disabilities, in reducing the chances of recovery from serious surgical operations, involving prolonged anesthesia;

and during my service here of about ten months I have been greatly impressed with the fact that old men are much better subjects than, I believe, is generally supposed.

* * * * * * *

Some of the inmates are veterans of the Mexican war; many of them were mature men at the outbreak of the civil war, and most of the younger men are the débris of the Spanish war and the military operations in the Philippines. This clientele does not seem to offer a very promising field for surgery. Many of these men suffer from chronic alcoholism, general arterio-sclerosis very far advanced, chronic nephritis, cystitis, tabes, diabetes, syphilis, or inoperable visceral cancer. Heart diseases (including neuroses, valvular defects, and degenerations of the heart muscle) and chronic pulmonary tuberculosis, extensive emphysema, and chronic bronchitis are very common. Indeed, it is the exception to find a man over 60 in the hospital entirely free from one or other of these diseases, and still many of them present indications for operation almost mandatory, if what is left of their lives is not to be intolerable.

Out of 65 operations I have performed here, of sufficient severity to require general anesthesia, 22 were done on patients averaging 70.4 years of age (the youngest being 62, the oldest 85) and, as it is these cases only that present anything of interest in this connection, the others will not be considered.

* * * * * * *

The operations in the 22 cases under consideration comprised:

	Operations.	Recovered.	Died.
Amputation	4	3	1
Hernia, inguinal	8	8	0
Hemorrhoids	3	3	0
Exploratory laparotomy	2	2	0
Ventral hernia	1	1	0
Lithotomy (supra pubic)	1	1	0
Trephining and removal of depressed bone of skull	1	1	0
Varicose veins	1	1	0
Nephreotomy	1	1	0

* * * * * * *

The one case among the 22 that ended fatally (this man died on the fifth day after the operation) was a case of amputation 2 inches below trochanter for senile gangrene of lower extremity. There was no oozing from the flaps, the femoral arteries were obliterated, no attempt at union resulted, and the stump became gangrenous. This man had three years before lost the other lower extremity (amputation at about the same point) for the same cause. He was 69 years of age and in general poor condition. The operation was done at the patient's earnest solicitation to relieve intolerable suffering in the extremity.

* * * * * * *

The only conclusion to be drawn from these cases is that we need not hesitate to operate even on very old men; that their chances are rather better than is generally supposed, and that in view of the record of the anesthetist at this hospital, who has been administering the anesthetics for fourteen years without a death (586 cases in all), it would appear that general anesthesia is not so dangerous for old people as we are led to believe.

In an interesting paper, discussing at length results of surgery in the Philippine Islands, Maj. J. M. Banister, surgeon, U. S. Army, in conclusion presents the following propositions:

1. Aseptic results will just as surely follow aseptic methods in the Philippines as in the United States or Europe.
2. Should septic infection occur in any clean case subjected to operation in the Philippines, blame the technique, not the climate.
3. Successful attainment of the object for which the operation has been undertaken will follow careful and skillful surgery in the Philippines with the same regularity that we have been accustomed to observe in such work at home.
4. Convalescence after surgical operations in the Philippines is rapid and satisfactory when such operations have been carefully and skillfully performed.
5. The danger of mortality after a skillfully performed surgical operation in which

all the details of a rigid aseptic technique have been carried out is not increased by the influences of the climate of the Philippines unless the patient is at the same time the victim of some other serious disease.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

Maj. Walter D. McCaw, surgeon, U. S. Army, who attended the Eleventh International Congress of Hygiene and Demography in session at Brussels, September 2 to 8, 1903, rendered the following interesting report on the proceedings of the congress:

The opening session of the congress took place next day in the Palais des Academies, His Royal Highness Prince Albert of Belgium acting as honorary president. In the afternoon the various sections of congress assembled for work. Two grand divisions were organized—the division of hygiene and that of demography. The division of hygiene which met in the Palais de la Nation was subdivided into seven sections as follows:

I. Bacteriology, microbiology, and parasitology applied to hygiene.

II. Hygiene of alimentation. Chemical and veterinary sciences applied to hygiene.

III. Technology. Hygienic engineering and architecture.

IV. Industrial and professional hygiene.

V. Hygiene of public transportation.

VI. Administrative hygiene. Prevention of transmissible diseases. Dwellings of the working class. Hygiene of infancy.

VII. Colonial hygiene.

As it was entirely impossible to attend more than one section, I confined my attendance to the section on colonial hygiene with the exception of one day when I attended the third section to listen to a very valuable paper by Mr. Fowler, of Manchester, England, on the bacterial purification of sewage exemplified by the city system of Manchester.

By far the greater part of the papers had been printed prior to the meeting of the congress and issued in the form of leaflets to the different members. It was therefore an easy matter to follow the discussion of the various questions intelligently. A journal of the congress was issued daily giving briefly the main points of the various discussions. The third section after listening to the papers of Fowler, of Manchester; Dunbar, of Hamburg; Launay, of Paris; Rideal, of London, and others set the seal of its approval upon the bacterial method of purifying sewage as being both economical and hygienic, practicable and effective.

The section on colonial hygiene held a long discussion on the subject of proper diet for the Tropics, the final outcome of which was a decision that moderation in eating and a liberal and varied diet were advisable for Europeans in the Tropics, but did not recommend any very defined change from the accustomed diet in temperate climates. The opinion of the section on this point seems to be entirely in accord with the experience of the United States army in the Philippine Islands.

Doctor Celli, of Rome, made a report upon the prophylaxis of malaria and stated that excellent results had been obtained by the free distribution of quinine to the poorer classes. Sir Patrick Manson stated that he did not believe mosquitoes to be the sole cause of the disease, but that some other factor, evidently as yet unknown, existed. He laid great stress upon the necessity of examining all candidates for service in tropical climates as to their ability to take quinine, and believed that no persons who from special idiosyncrasy were unable to bear quinine should be so employed. The prophylaxis of malaria, it was decided, should be under three headings: (1) The destruction of mosquitoes and of their larvæ; (2) the protection of the individual by mosquito bars; (3) and most important, the segregation of Europeans from the native villages at a safe distance. The specific remedies for malaria are quinine and small doses of arsenic. The section universally congratulated the Italian Government for the measures taken in the fight against malaria.

The discussion on the prevention of bubonic plague developed nothing of especial interest.

The sleeping sickness of Africa was discussed by Doctor Van Campenhaut, from the Congo, who proposed the following conclusions: (1) Isolate as soon as possible individuals attacked by the sleeping sickness; (2) to not permit their transportation by public carriage—land or water; (3) not to send to their own countries individuals attacked while absent therefrom. Sir Patrick Manson stated that the cause of this sickness is still unknown, but believes that the trypanosoma is the cause. Doctor

Blanchard described a French mission to Africa and confirmed Doctor Manson's belief as to the cause of the sleeping sickness.

The prophylaxis of beriberi was then taken up by the section. Much difference of opinion was expressed as to the cause of this disease, such as monotonous diet, the use of alcohol, infection of dysentery, typhoid fever, etc. No final conclusions on this point were made, but the following resolution was adopted:

"In the absence of positive and sufficient knowledge on the origin of different varieties of beriberi, a more complete study of this affection is necessary. While waiting the definite result of further research, it is necessary to apply strictly to native populations the rules of hygiene concerning alimentation and dwelling places which have been found of value by colonial physicians."

A discussion on vaccination and the preservation of the virus in the Tropics then followed. Doctor Guerin stated that the virus should not be mixed with too much glycerin and should not be triturated when it was necessary to transport it some distance. He stated that the rabbit was an excellent vaccinifer. Doctor Calmette suggested that monkeys could be inoculated with variola, and after several passages the rabbit could be inoculated, and if the latter showed pustules the material might be authorized as vaccine.

The final question before the section was on the question of instruction in colonial medicine, the necessity of which was unanimously acknowledged.

The congress closed by a formal session on the 8th of September. Professor Harrington, of Harvard, invited the congress to meet in Washington in 1909. This invitation was issued after consultation with the United States minister to Belgium, who had received from the Secretary of State an intimation that the meeting of the congress in the United States in that year would be agreeable to the Government, this invitation subject to future formal action by the Government of the United States. The place of meeting for the next congress in 1907 will be Berlin.

NUTRITION INVESTIGATION.

A very interesting nutrition investigation was conducted upon a detachment of the hospital corps, at New Haven, Conn., under the direction of Prof. R. H. Chittenden, director of the Sheffield Scientific School, extending over the period from September 28, 1903, to April 1, 1904.

The detachment, consisting of one sergeant first class, one sergeant, one corporal, one private first class, and fourteen privates, was under the command of Lieut. Wallace DeWitt, assistant surgeon, U. S. Army. The following are extracts from his report:

> The object of the experiment was to determine the minimum proteid food requirement necessary to maintain health, and the effect of such a minimum of proteid upon the human organism as regards muscular strength and the ability to do work, both mental and physical.
>
> Since many of the excrementitious substances of the body were due to the products of nitrogenous metabolism, it was Prof. Chittenden's desire to lower to a minimum, consistent with health, the nitrogenous food, and in this way bring less work upon the organs or tissues concerned in their excretion. It was his opinion that proteid foods were, as a rule, taken in excess, and that the resulting excess of waste products must in the long run have a deleterious effect upon the organism. As an example of this he cited the increase of arterio-sclerosis among Americans.
>
> Since food rich in proteids is the most expensive of foodstuffs, a proof that such food could be advantageously reduced, founded on experimental evidence, would be of great economic value.
>
> His method of conducting the experiment would be something as follows: On arrival of the detachment of Hospital Corps at New Haven, the men would live for the first ten days on the food to which they were accustomed since entering the service. After this period there would be a gradual reduction in the quality and quantity of the food, especial attention being paid to the proteid components. This reduction would be very gradual in order to accustom the men to the change, and so far as possible it would be a reduction in quality rather than quantity, the bulk being kept up by a substitution with articles of small food value, such as cabbage, etc., thereby giving a feeling of satisfaction after meals. The quantity of the food taken by each man would be determined at each meal. All urine and feces would be collected, and by examination of these an index would be obtained to metabolism in

general and proteid metabolism in particular. The men themselves would be weighed each morning, and subjected to certain daily work in the gymnasium under an instructor who would from time to time make certain strength tests and measurements. So far as practicable the men would perform the regular duty of enlisted men of the Hospital Corps.

On October 1, 1903, the detachment having become comfortably settled, the men were put upon the diet prescribed by Professor Chittenden, for which purpose a bill of fare was furnished by him at the beginning of each week. For the first ten days the food compared favorably with that obtaining in a well-conducted Hospital Corps mess, with the addition of a few extra articles such as lettuce, butter, etc., and the men were permitted to eat as much as they desired. At the end of this period what may be called the "cutting-down process" was commenced, during which time the amount and quality of the food was gradually reduced, especial attention being paid to the proteid components (first meat and then vegetables of high proteid composition). To make up for the loss in bulk, carbohydrates and vegetables of low proteid composition were substituted as far as possible. The food allowed to each man was limited to the weight on the bill of fare furnished by Professor Chittenden, and the actual quantity consumed was carefully estimated by weighing, and the amount recorded on a blank form furnished by the authorities conducting the investigation. All of this weighing was done by a noncommissioned officer detailed for the purpose. The cutting-down process referred to was continued until about December 20, 1903, at which time it was decided that the desired minimum had been obtained, and from this time until the end of the investigation the food was kept of approximately the same quantity and composition.

During the entire period of the investigation all urine and feces were collected in individual bottles and cans provided for the purpose and sent to the laboratory for examination at the end of each twenty-four hours, after being weighed and measured by a noncommissioned officer. When not in use these receptacles were kept in individual lockers, for one of which each man had a key, in this way avoiding any accidental admixture of urine from different men. The men were sent to the gymnasium each morning, where they were given work under a gymnastic instructor appointed by Professor Chittenden. This work consisted of the use of chest weights, horizontal bars, jumping, running, rowing, etc., the procedure being varied day by day to prevent "staleness." Certain strength tests and measurements were taken at the gymnasium from time to time, and once a week certain body measurements were made at the detachment quarters.

Very important results have been obtained as a result of the investigation, which will be published by Professor Chittenden in his forthcoming book.

UNITED STATES ARMY GENERAL HOSPITALS.

UNITED STATES ARMY GENERAL HOSPITAL, PRESIDIO OF SAN FRANCISCO, CAL.

This hospital has undergone a number of improvements during the year. The following structures have been erected and occupied since the last annual report: Operating pavilion, dressing rooms, one each for wards D and E; a large storeroom; dormitory with an annex for the detachment of the hospital corps, addition to the morgue, guardhouse, and kitchen for the officers' ward.

The number of cases treated per year has continued to decrease.

The following table shows the admission and disposition of the sick during the year ending December 31, 1903:

	From Philippine Islands.	From points in United States.	Total.
Remaining in hospital Jan. 1, 1903	301	68	369
Total admissions during year	1,314	840	2,154
For gunshot wounds	17	12	29
For diarrhea and dysentery	525	114	639
For malarial fevers	68	38	106
For typhoid fever	13	9	22
For rheumatic affections	57	25	82
For venereal diseases	65	90	155
For alcoholism	4	10	14
For injuries	50	98	148
For insanity	64	7	71
For other causes	451	437	888
Total returned to duty	539	659	1,198
Total discharged for disability	269	82	351
Deaths from all causes	28	16	44
Desertions	16	7	23
Sent to Government Hospital for the Insane	41	5	46
Sent to United States Army general hospital, Fort Bayard, N. Mex	61	28	89
Sent to Army and Navy general hospital, Hot Springs, Ark	42	9	51
Otherwise disposed of	226	224	450
Remaining in hospital Dec. 31, 1903	160	111	271

During the year there occurred an epidemic of measles which proved most fatal in its results, and from which cause there occurred 10 deaths, which in each case was due to development of abscesses in both lungs and pleural cavities. This epidemic was succeeded by one of mumps. Erysipelas became epidemic at one time, and it was necessary to remove all cases from the surgical wards after which there was no further occurrence of this disease.

During the year 211 operations were performed. Of this number there were 7 amputations, 21 appendectomies with 1 death, 12 cases of liver abscess with 6 deaths, and 26 herniotomies with no death.

The following table gives a summary of the work done in the eye, ear, nose, and throat department:

Total number of cases treated	737
Diseases of the eye	341
Diseases of the ear	146
Diseases of the nose and throat	250
Total number of operations	130
On the eye	48
On the ear	8
On the nose and throat	74

In the X-ray laboratory a new coil machine of the most improved pattern has been installed and excellent results are reported from its use. Radiographs of various portions of the body can be taken with exposures varying from a few seconds to one and a half minutes—a short enough time for all practical purposes. Excellent pictures of the chest have been taken in one minute, showing distinctly tubercular nodules, pleural thickening, and even abscess cavities with their surrounding walls. In addition to diagnostic work, the following therapeutic work has been done with the machine:

Ringworm of the face cured in three exposures after all medication failed.

One keloid of neck in a little girl 6 years of age, following burn; very much improved and still under treatment.

One lupus of the face cured after having been operated upon several times.

One mastitis, chronic; cured.

Ten cases of chronic eczema cured.

One case of chronic gonorrheal rheumatism of the ankle was very much improved after all other treatment failed.

One case of chronic rheumatism of knee was very much improved after failure of other treatment.

One case tubercular glands of neck, very extensive, not improved.

In the pathological laboratory the following routine work was done besides original investigations: Examinations of blood, 2,496; examinations of urine, 3,588; examinations of feces, 1,386; examinations of sputa, 963; blood counts, 496; Widal's test, 47; Malta fever tests, 13; cultures for diphtheria, 16; post-mortems, 42; sections of post-mortem material, 508; miscellaneous, 221.

In addition to the examinations given above, there were 610 examinations from outside sources, comprising the substations of the Presidio, stations of the Department of California and from department headquarters. These examinations were divided as follows: Examinations of blood, 178; examinations of urine, 299; examinations of sputa, 37; examinations of feces, 51; and miscellaneous, including water analyses, etc., 45.

As a result of the blood examinations the pathologist makes the following remarks concerning the decline of malarial cases:

> In the last annual report of the laboratory I mentioned the decline in the number of malarial cases received at this hospital, this decline being out of proportion to the total number of examinations made. The following table will illustrate how, from year to year, the number of cases of malaria observed has decreased:

	Total blood examinations.	Total malarial infections.
Oct. 1, 1899, to July 1, 1900	2,467	264
July 1, 1900, to June 30, 1901	5,815	643
June 30, 1901, to May 31, 1902	3,518	175
May 31, 1902, to June 30, 1903	3,413	158
June 30, 1903, to June 1, 1904	2,073	57

> A consideration of this table will show at once that malaria is not as prevalent in soldiers returning from the Philippines as it was in 1899, 1900, and 1901. This decrease is undoubtedly due to a better understanding of the mode of spread of this disease, and also to the fact that the troops are better housed and largely in permanent posts, thus not being exposed to infection.

The examination of feces gave the following interesting results: Of the 1,386 specimens examined microscopically for intestinal parasites the ameba coli was found in 201; trichomonas intestinalis in 203; cercomonas intestinalis in 29; uncinaria (ankylostoma) in 10; teniæ in 12; strongiloides intestinalis in 6; ascaris lumbricoides in 38, and trichuris trichuria in 196.

UNITED STATES ARMY GENERAL HOSPITAL, FORT BAYARD, N. MEX.

The commanding officer rendered the following report on the operations of the hospital for the year:

> Since January 1, 1903, the following additions, etc., have been made to this hospital: A new officers' infirmary, an addition to the enlisted men's infirmary, a

morgue, receiving vault, crematory, laboratory, quartermaster and medical storehouses, hospital corps barracks, cold-storage plant, and an electric-lighting plant. Some are completed, but most of them are under construction or in process of installation.

Sleeping out of doors is encouraged and, in some cases, ordered. For this, tents framed and floored are used, as also the porches. The porches are protected on the windward side by glass. The solarium completed last March has been of great advantage to the patients.

Every effort has been made to make life as pleasant as possible. A stage with scenery, billiard and pool tables, an Angelus and all sorts of games have been provided. Wagon transportation for recreation has been furnished as freely as means have allowed.

The danger of carrying infection has been thoroughly understood, and each patient is provided with a spit cup upon his arrival at the station.

The following new buildings are needed, viz: Officers' quarters, dining rooms for the officers and enlisted men's infirmaries, wards for ambulant patients, chapel, quarters for sergeants first class, hospital corps, administration building, and a special hospital for sick noncommissioned staff officers of both Army and Navy.

Treatment.—The treatment is simply hygienic and climatic, with the treatment of intercurrent complications as they arise. All patients are required to remain out of doors during the day except those confined to the infirmary. In inclement weather they spend the time in the solarium, where they are sheltered and at the same time have the benefit of the sunlight.

The patients, for purposes of treatment, are divided into four classes: (1) Convalescent, ambulant patients. These men require little or no special treatment. They are quartered in the wards and report at sick call at 9 a. m. each morning whenever the progress of their cases requires special attention. (2) Febrile ambulant cases. These cases are taken from those of the first class or are assigned to this class for treatment at the time of admission to the hospital. Cases of the first class who are shown by the weekly weight records to be losing are assigned to this class, as are also those who have fever. These patients are quartered in tents. They are under special supervision as regards their diet and manner of life. They are required to take three hours rest in bed each day, one hour and a half in the morning and one hour and a half in the afternoon. They are required to retire at 9 p. m. Careful record of these cases is kept and any change for the better or worse noted. It has been found that the enforced rest, constant out of door life, and attention to minor details of treatment in this class of cases results in the great majority of instances in a quick and decided gain. This treatment is also a decided benefit to the patient in that it trains him, as can be done in no other way, to the understanding and observance of the regular hours and fundamental laws of health, without which it is impossible to achieve the best results in the treatment of pulmonary tuberculosis. (3) The third class of patients are the uncomplicated, but far advanced cases. These are assigned to quarters in ward one, a building situated near the infirmary and removed from the larger wards, thus allowing these patients greater quiet and more seclusion than could be obtained in one of the larger wards. These patients mess at the infirmary, where they are able to procure special articles of diet and are not obliged to go a great distance from their quarters. (4) The fourth class of patients are those who are either confined to bed or whose cases require constant supervision. They are quartered at the infirmary. It has been found desirable to keep a certain number of this class constantly out of doors. For them tents have been pitched at a short distance from the building. These patients are subject to the same supervision as the tent patients of class two. In addition they are constantly near the hospital and have the advantage of special diet and treatment that the condition of each individual may demand.

STATISTICAL REPORT.

During the year 1903 the total number of cases treated at the Fort Bayard General Hospital was 644. Of these, 204 were present at the beginning of the year and 257 remained at its close.

The patients treated were classified as follows: (1) Cases exhibiting permanent afebrility without tubercle bacilli in the sputum, 95. (2) Cases exhibiting permanent afebrility or approximately permanent afebrility with tubercle bacilli in the sputum (pure tuberculosis of a minor degree of mixed infection), 235. (3) Cases exhibiting permanent febrility with tubercle bacilli (mixed infection), 304. To this must be added a fourth class. (4) Cases exhibiting permanent or approximate febrility without tubercle bacilli in the sputum, 9.

The results obtained in the 643 cases reported on are classified as follows: (1) Arrested cases, those in which all outward symptoms of the disease have disappeared. (2) Improved cases, those not arrested but in which the lesion is less than at the initial examination. (3) Unimproved cases. (4) Deaths.

The following table gives the results obtained in each class of cases, with the results of all classes combined:

	Arrested.		Improved.		Unimproved.		Died.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Class 1 (95 cases)	18	18.95	73	76.84	4	4.21	None.	....
Class 2 (235 cases)	4	1.7	168	71.48	59	25.1	4	1.7
Class 3 (304 cases)	None.	....	96	31.57	142	46.71	66	21.71
Class 4 (9 cases)	None.	....	3	33.33	3	33.33	3	33.33
Total (643 cases)	22	3.42	340	52.88	208	32.34	73	11.35

The following table shows the complications associated with the pulmonary lesions. In this table cavities are listed in cases where the physical signs give unmistakable evidence of their presence. It will be seen that they are present, showing a far advanced lesion, in 25 of the cases of Class No. 2 (afebrile cases).

Complications.	Class 1.	Class 2.	Class 3.	Total.
Pleurisy with effusion	4	5	24	33
Empyema	1	1	3	5
Cavities		25	53	78
Hemorrhages	1	2	7	10
Dilatation, heart	1	1	1	3
Mitral insufficiency	2		3	5
Tricuspid insufficiency			1	1
Hypertrophied heart			2	2
Chronic parenchymatous nephritis	3	4	11	18
Chronic interstital nephritis			1	1
Pneumonia	1		1	2
Syphilis	2	1	1	4
Laryngeal tuberculosis	1	1	6	8
Tubercular synovitis, knee-joint	1			1
Tubercular prostatitis	1		1	2
Dysentery	1	2		3
Chronic articular rheumatism	1		1	2
Fistula in ano	1			1
Ischiorectal abscess		1		1
Caries of spine	2			2
Alchoholism		1		1
Hemiplegia		1		1
Pulmonary stenosis			1	1
Abscesses	1			1
Aortic stenosis		1		1

Table of deaths, showing the length of time after admission for each case.

	Weeks.			Months.																					Average.
	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	14	16	23	24	25	28	31	38	61	
Class 2						1			1												1		1		18 months 23 days.
Class 3	6	4	2	6	6	5	7	4	7	5	1	1	2		1	1	2	1	1	2		1	1	1	7 months 8 days.
Class 4					1		1		1																4 months.

Total for first month, 17; average, 9 months 10 days.

It will be seen from this table that the deaths which occur are mostly during the first few months of stay at the hospital or among the cases which are so far advanced that they have only a few months to live, there being at no time any hope of recovery. Cases not so far advanced that they have only a few months to live, will, with suitable attention to the ordinary rules of hygiene, have life prolonged for an indefinite period.

The three deaths in the fourth class of cases, those in which tubercle bacilli could not be found, were all cases which died of complications rather than from the pulmonary tuberculous lesion. One was a case of empyema, one of tubercular nephritis with abscess of the kidney, and the third a case of pneumonia, with only a small tubercular focus. One death which occurred during the year, that of a member of the hospital corps, who died with rupture of the spleen, is not recorded in this list, as it was not a case of tuberculosis.

Attention is called to the fact that the "unimproved" cases are so recorded when the lesion, at the time of discharge or at the making of this report, is not less than at the time of the initial examination. In a large number of these cases the disease has been what the compilers of many statistics call "arrested," or changed from an active process to a chronic one. These cases will live in a good climate and under good conditions for a number of years. Many of them have been discharged from the hospital and continue to live in such surroundings. They are at the present time useful members of the communities in which they reside.

It will be seen from the above table that of the deaths during the year, 66 were of the third class of cases and 3 of the fourth, the complicated cases referred to above. This total of 69 cases is 94.52 per cent of the total death list. The death rate for the patients of the first and second classes combined is but 1.2 per cent. These two classes are made up of the more promising class of patients, which only are admitted to many sanatoriums for the treatment of tuberculosis. Among these patients it will be seen that the results attained are very satisfactory.

The time required for improvement to become evident is shown in the following table:

	Months.									
	1	2	4	6	8	10	12	14	16	Average.
Class 1	21	60	2	6	....	....	....	....	....	2.33
Class 2	18	106	20	9	3	....	2	....	....	2.45
Class 3	14	57	10	8	....	1	1	1	....	2.60
Total	53	223	32	23	3	1	3	1	....	2.49

The fact that a large number of patients do not show improvement until the second month of treatment is due to the fact that a majority of them have arrived after a long and fatiguing journey, often from the Philippine Islands, and several weeks are needed for recuperation. Other patients require some little time to become accustomed to the higher altitude and changed climatic conditions.

Of the arrested cases, 3 had no physical signs of the disease at the time of admission, and tubercle bacilli were not in the sputum. Of the remaining cases 2 are recorded as arrested on the second month, 3 on the fourth, 8 on the sixth, 1 on the eighth, 3 on the tenth, 1 on the sixteenth, and 1 on the thirty-fourth. The average time required is 9.6 months. Of these cases 18 belonged to the first class and 4 to the second.

The total number of arrested cases, 22, is small. Few of the patients remain until a cure is completed. Many of the enlisted men, as soon as they are discharged from the Army, return to their homes; while others, when they feel themselves able to take up outside work, go elsewhere to complete a cure.

A large proportion of these men do well, but there is a tendency for other men not yet fit to take up active work to follow their example and leave the hospital at a time when several months are required for treatment before they will be fit to care for themselves. These patients are apt to return for treatment in much worse condition than when they first entered the hospital.

LABORATORY REPORT.

The laboratory work during the past year has largely consisted in the routine examinations of sputum, blood, and urine. These examinations are made in the case of each patient at the time of admission, and are repeated every two months during his stay at the hospital. Other examinations are made as the progress of special cases requires.

During the year the total number of specimens examined was as follows: Sputum examinations, 4,960; blood examinations, 1,350; urine examinations—chemical, 1,576; chemical and microscopical, 820.

SPECIAL WORK.

In November, 1902, investigations were commenced by Dr. J. J. Curry, contract surgeon, U. S. Army, to determine (1) the presence of tubercle bacilli in the sewage from the post; (2) the presence of tubercle bacilli upon the surface of the sewage farm; (3) the degree of virulence of such organisms after exposure to air and sunlight upon the surface of the farm; (4) whether or not this farm is to be considered a source of infection to persons living near the hospital.

Method of disposal of sewage.—The sewage of the post is carried a distance of about one-third of a mile below the buildings to a basin upon the eastern side of Cameron Creek. From this point it is carried across the creek to another basin from which it is distributed by a system of irrigating ditches and spread upon the surface of the sewage farm.

This farm is one in name only. It is not under cultivation. It covers about 25 acres and is fenced away from cattle. The system of irrigating ditches is so arranged that the area of distribution is changed every few days and the material is exposed to the sunlight and thoroughly dried.

At the point where the sewage farm is situated, Cameron Creek runs at the bottom of a canyon about 30 feet wide and 25 feet deep. This creek is usually a small stream, but at times of floods, which are frequent during the summer months, it becomes greatly swollen. At such times it is possible that sewage may be washed into it from the farm and be lodged upon the banks of the stream as the flood subsides. The town of Central is situated upon this stream one-half mile below the sewage farm.

Tubercle bacilli in sewage of the hospital.—In the fall of 1902 Doctor Curry made examinations of the material from the basin upon the eastern side of the creek and found it contained large numbers of tubercle bacilli. These were so numerous that in order to demonstrate their presence it was only necessary to prepare stained slides from the mud of the sewage basin. The bacilli were found in nearly every slide in groups of from three to ten, single bacilli being found in other portions of the slides examined, and a small proportion of the slides being negative.

Slides were next examined of dried sediment from the irrigating ditches of the farm and the bacilli found, but in comparatively small numbers. They could be demonstrated in one or two out of every five slides examined. Some of these germs appeared swollen, as though bacteriolysis had commenced.

Doctor Curry's death put a stop to the work for the time. It was taken up again in the spring of 1903, and has been continued during the summer and fall.

Inasmuch as the time required for sewage to reach the first basin from the hospital is but twenty-five minutes, and but thirty-five minutes is required for it to reach the end of the irrigating ditches, organisms may be presumed to reach the sewage farm in a state of practically unimpaired virulence. This was shown to be the case. A guinea pig inoculated with one platinum loop of the fresh deposit of the sewage basin and killed at the end of forty-four days, showed tubercular lesions in the inguinal glands and tubercles in the lungs. Tubercle bacilli were found present in the caseous material of the enlarged inguinal glands.

It then remained to be shown what effect drying and exposure to sunlight had upon these bacilli. For these experiments material was used which had been exposed for two weeks. This was taken from the surface of the dried irrigating ditches.

Two guinea pigs which had been inoculated subcutaneously, as in the case of the last animal, were killed on the eighty-second and eighty-third days after inoculation, and showed no evidence of tuberculous infection.

Intraperitoneal inoculations were next made on 12 animals. Thirty-two grams of dried material from the surface of the irrigating ditches were suspended in 96 c. c. of distilled water, and 2 c. c. of this mixture were injected in the case of each animal. By this method a much larger dosage was obtained and the probability of infection was made greater by reason of its being placed in the peritoneal cavity. Of the animals treated in this way, 8 died within seventy-two hours of acute peritonitis. The remaining 4 were killed on the fifty-first, fifty-fifth, sixty-fifth and sixty-sixth, days, respectively. The animal killed on the fifty-fifth day showed enlarged inguinal glands and small tuberculous foci in the lungs. From both these sites tubercle bacilli were recovered. The other animals showed no evidence of tuberculosis.

This method of infection was unsatisfactory, as so great a proportion of the animals died of other infection, and so great an inflammatory reaction was set up in those that did not die that the conditions of growth were altered widely from those that would occur in cases of accidental inoculation of the human subject. Subsequent inoculations were made by causing the animals to inhale sprays of infected material.

The spray method of inoculation is most effective. The animal is confined in a closed cage. The ones used in this case were 3 feet long by 2½ feet wide and 2 feet high. The material used is suspended in water, in proportion of 1 to 8. Two ounces of this mixture are strained through cotton and placed in an ordinary atomizer. This is attached to a compressed-air tank, and the spray thrown into the cage. The air pressure of the tank is so regulated that five minutes is required to spray 2 ounces of the mixture.

In order to demonstrate the effectiveness of this method, two control animals were treated. A mixture of tuberculous sputum was used in the proportion of 8 c. c. to 64. The first of these animals was given seven sprayings on seven consecutive days. It died on the fifteenth day after the last spraying. Its lungs were almost completely solidified. The stained sections showed innumerable tubercle bacilli. The spleen was filled with small tubercles and also showed an immense number of tubercle bacilli.

The second animal was given but one spraying of five minutes duration. It was killed on the eighteenth day. Its lungs showed well-defined, isolated tubercles, which when stained showed great numbers of bacilli.

Twelve animals were treated by this method with sediment from the surface of the sewage farm, which had been exposed for two weeks. Each of these animals was given five sprayings of five minutes duration on five successive days. The material used, like other materials from this source, showed tubercle bacilli present in small numbers. These animals were killed one month from the time of inoculation, and in no case showed any evidence of tuberculous infection.

Samples of material deposited upon the banks of the creek, below the farm and above the town of Central, were collected and examined for tubercle bacilli. Over 100 specimens taken from various points were examined. In none of them were tubercle bacilli found.

Forty animals were injected intraperitoneally with a mixture of this material in distilled water. The proportion was 1 to 8 and 2 c. c. were used in each case. Of these 40 animals but 1 died of septic peritonitis. This is interesting as tending to show that little or none of the material from the surface of the sewage farm, containing the associated germs that had caused the death of the animals of the first series, had been carried into the stream or that if present its virulence had been lost. Of the remaining 39 animals of this series, 29 died between the twenty-fifth and thirtieth day after inoculation from an epidemic of a disease similar to cholera. This disease is one quickly fatal for guinea pigs. The animals die in from twelve hours to four days. The examinations of the bodies show hemorrhages into the intestines and stomach with erosions and ulcerations. Cultures taken from these animals showed a slightly motile rapidily liquifying bacillus, similar in appearance to the typhoid, which may be the cause of the disease. None of these animals showed any signs of tuberculous infection on autopsy. The remaining animals were killed at the end of one month. They were carefully examined and showed no signs of tuberculous infection.

The results of these experiments show: (1) That notwithstanding the fact that all sputum from the post is burned in the crematories, the sewage of the place contains tubercle bacilli in very large numbers. (2) That these are deposited upon the surface of the sewage farm in a state of practically unimpaired virulence. (3) That after exposure for two weeks to drying and sunlight their virulence is in a great measure lost or that few bacilli remain capable of carrying infection. That under favorable circumstances, this dried material is capable of giving infection. That inhalation of the germs so exposed is not apt to cause infection of susceptible animals. (4) That débris lodged upon the banks of the stream below the farm is practically free from infectious material of the farm. Tubercle bacilli are either absent or if present in such small numbers that they can not be regarded as probable source of infection.

It can not be conceived that there will ever again be any serious question as to the necessity of reporting to health authorities cases of tuberculosis or the propriety of legally authorizing oversight of these cases.

In several municipalities of this country this disease has been classed in the list of communicable and reportable diseases and regulations for its surveillance have been adopted.

The patients discharged from this hospital act as missionaries in the education of the general public in the all-important knowledge of hygienic mode of life and protective measures so practically learned.

UNITED STATES ARMY GENERAL HOSPITAL, WASHINGTON BARRACKS, D. C.

This hospital also served as a post hospital for Washington Barracks during the past year. All hospital and company buildings are in poor repair, and while the sanitary conditions are fair, they are entirely inadequate for their purposes. As the work of excavation and construction for the new engineer post and War College progresses more and more encroachment is made on the hospital grounds and the hospital becomes more and more unsuitable for continued occupancy. The necessity for a new general hospital site and buildings is therefore more urgent now than ever before.

During the fiscal year 529 cases were treated in this hospital, of which 265 were medical, 119 venereal, and 145 surgical. In the surgical service 65 of the more important operations were performed, including 22 operations for hernia of various kinds and 10 appendectomies. Besides the death from a complication developing in a case of hernia after operation, 2 were recorded from croupous pneumonia, and 1 each from carcinoma of tongue; osteosarcoma, right hip joint; renal cirrhosis; carcinoma of rectum and accidental poisoning by wood alcohol.

I repeat most earnestly my previous recommendation that a hospital of sufficient size and perfect in every respect be built in the District of Columbia for the following purposes:

First. Treatment of cases needing the services of specialists, surgical or other observation, and treatment of officers incapacitated for service prior to their appearance before retiring or examining boards.

Second. Training enlisted men of the hospital corps in nursing and military duties.

Third. Instruction at the Army Medical School in military surgery, hospital administration, hospital corps drill, and establishment of field hospitals.

Fourth. To serve as a nucleus around which, in time of war, temporary wards may be erected without delay to any extent and at minimum expense.

Sketch plans have been completed for such a hospital, the establishment of which means so much to the Medical Department and the Army at large.

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

Many minor improvements and all necessary repairs were made to this hospital during the year in which 565 patients were treated for the period June 1, 1903, to June 1, 1904, compared with 372 cases admitted in the calendar year 1902, and 407 in 1901. There were 41 officers admitted and treated during the year. The total number of admissions were classified as follows: Rheumatism in various forms, 270; diseases of digestive system, 39; of the nervous system, 39; malarial fevers, cachexia, etc., 18; of the kidneys, 18; other diseases, 181. Of these cases, 391 were returned to duty or returned to their homes, 7 died, 60 were discharged for disability, 17 were otherwise disposed of, and 90 remained under treatment June 1, 1904.

FIRST RESERVE HOSPITAL, MANILA, P. I.

The following improvements in the buildings have been made during the past year: Lavatories have been constructed at the rear of each ward, consisting of stationary basins with proper plumbing. The operating rooms have been retiled and repainted and additional apparatus for surgical work has been secured. A new chemical laboratory has been constructed and equipped. A very complete water-distilling plant has been installed, which furnishes all of the drinking and cooking water for the hospital. The kitchen has been improved and rearranged and a most complete steam-cooking plant received from the United States has been installed. A gasoline engine furnishes the power for a dough mixer, ice-cream freezer, hash machine, knife grinder, etc. The commanding officer has arranged a gymnasium for members of the hospital corps detachment, and has secured, by the authority of the chief surgeon of the division, an outfit for the same. This seems to have contributed materially to the well-being of the men. At present the hospital is being repaired and repainted by the quartermaster's department.

A medical department steam laundry which was established for the purpose of laundering the linen for the hospitals in and about Manila has been highly successful. Not only has it removed the danger of infection when the work was done by private parties, but has reduced the cost to the Government for laundering this linen from 2½ cents per piece to four-fifths of 1 cent. It is anticipated that in the near future the receipts from private work will pay all the running expenses of the plant.

The movement of sick in this hospital June 1, 1903, to May 31, 1904, was as follows: Number of cases in hospital June 1, 1903, 282; cases received, 2,530; returned to duty, 1,619; died, 44; transferred to other hospitals, 431; transferred to the United States, 590; discharged, 13; otherwise disposed of, 7; remaining in hospital May 31, 1904, 108.

For the strictly medical work of the hospital 5 wards are available, namely, 1 insane ward, 3 medical wards for enlisted men, and 1 for officers. The exanthemata and other acute infectious diseases are not treated at this hospital, and the same is true of venereal diseases. Such cases of this class as are enumerated in the table given below were admitted and transferred to other hospitals as soon as the diagnosis could be determined. The following table gives the number of cases treated in the medical wards which are grouped under general heads:

Insanity	35
Dysentery	303
Other intestinal diseases	193
Dengue	137
Typhoid fever	12
Malarial fevers	295
Rheumatism	59
Nephritis, acute and chronic	21
Pulmonary tuberculosis	88
Venereal diseases	261
Heat exhaustion	3
Cholera	5
Variola	7
Beri-beri	19
Malingering	3
All other diseases	386
Complicating diseases	17
Total	1,844

Among other important surgical operations performed, 37 were for the radical cure of inguinal hernia; 23 for appendicitis; 3 for ventral hernia; 2 for abscess of liver; 6 other laparotomies, 1 being for perforating gunshot wound of the abdomen with excessive tearing of the common iliac vein; 6 external perineal urethrotomies, 4 with and 2 without a guide; 2 trephine operations for fractures of the cranium; 1 excision of the anterior half of the tongue for malignant disease, and 1 excision of a large sarcoma of the groin involving the sheath of the external iliac artery. Of the 100 capital operations performed, 70 required invasion of the peritoneal cavity. A summary of the work performed in the surgical department shows that 427 cases were subjected to operation; of which 9 resulted fatally, and that 4 deaths resulted in the 169 cases treated without operation, or a total of 13 deaths occurred in the 596 cases treated.

A total of 923 cases was treated in the eye, ear, nose, and throat department, 513 being of the eye and 410 of the ear, nose, and throat.

During the year 231 analyses were made in the chemical laboratory, as follows:

Whisky	44
Sherry	2
Flour	3
Drugs	15
Condensed milk	3
Human milk	2
Water	160
Gunpowder captured from Moros	1
Urinary concretion	1
Total	231

Very valuable work was performed in the pathological laboratory during the year which may be summarized as follows:

Examinations of blood:	
For malarial parasites	1,765
For serum reactions	117
Blood counts	343
Blood cultures	5
Total	2,230

In the examination of the blood for malarial parasites First Lieut. H. M. Smith, assistant surgeon, U. S. Army, reports finding in 119 cases of the estivo-autumnal type a form so peculiar as to make it difficult to decide whether it was really a malarial parasite or some other organism entirely distinct. The blood of these 119 patients showed only small hyaline disks of an oval, spindle form, their short diameters varying from one-fifth to one-tenth the diameter of the infected red corpuscles and their long diameters being about twice as great. They have a very sharply defined outline, are highly refractive, and in the center of each form is a small round dot of hemoglobin. They have no ameboid motion whatever, but many of them, and this is their most peculiar characteristic, possess a motility of their own, moving around the periphery of the infected corpuscles or across them in any direction. They contain no pigment whatever and stain with great difficulty.

Examinations of urine	2,584
Examinations of stools	1,220
Examinations of sputum	604
Miscellaneous examinations	132
Necropsies	39

Tissues of all abnormal organs are examined microscopically and complete pathologic and bacteriologic reports are made in each case, the findings being embodied in the monthly sick and wounded reports of the hospital.

Microscopic sections from necropsy material	258
Gross pathological specimens preserved	39

ARMY MEDICAL MUSEUM.

The total number of specimens in the Army Medical Museum at the end of the fiscal year, June 30, 1904, was 35,067. The following statement shows in detail the additions and changes in the different sections:

Pathological section:		
In Museum June 30, 1903		12,520
Discarded	152	
Donated to the Bureau of Animal Industry	1	
		153
		12,367
Transferred from anatomical section		2
Received during the year		245
In Museum June 30, 1904		12,614
Anatomical section:		
In Museum June 30, 1903		1,669
Discarded	1	
Transferred to U. S. National Museum	619	
Transferred to pathological section	2	
		622
		1,047
Received during the year		121
In Museum June 30, 1904		1,168
Section of comparative anatomy:		
In Museum June 30, 1903		1,416
Discarded	5	
Donated to Bureau of Animal Industry	1	
		6
In Museum June 30, 1904		1,410
Microscopical section:		
In Museum June 30, 1904		12,916
Miscellaneous section:		
In Museum June 30, 1903		2,759
Received during the year		72
In Museum June 30, 1904		2,831
Provisional pathological section:		
In Museum June 30, 1903		1,205
Discarded	1	
Donated to Bureau of Animal Industry	1	
Donated to physicians	2	
		4
In Museum June 30, 1904		1,201

Provisional anatomical section:	
In Museum June 30, 1903	646
Transferred to U. S. National Museum	250
In Museum June 30, 1904	396

Photographic series:	
In Museum June 30, 1903	2,523
Received during the year	8
In Museum June 30, 1904	2,531

RECAPITULATION.

Specimens in Museum June 30, 1903	35,654
Discarded, transferred, and donated	1,033
	34,621
Added during the year	446
Specimens in Museum June 30, 1904	35,067

The following are some of the more interesting specimens received during the past fiscal year:

Malformation.—Specimen 12849. Human ischiopagus; Filipino; contributed by F. W. Donoho, sergeant, hospital corps, U. S. Army. Specimen 12817. Triocephalus puppy; contributed by L. M. Dugan, Washington, D. C.

Parasites.—Specimen 12814. Filaria immitis in heart of dog; contributed by U. S. College of Veterinary Surgeons, Washington, D. C. Models of distoma (12798), trematode (12799), and tapeworm (12800); purchased.

Injuries of bones and joints.—Specimen 12737. Fracture of skull of Filipino by a campilan; death; contributed by First Lieut. W. T. Davidson, assistant surgeon, U. S. Army. Specimen 12870. Healed fracture of lower jaw of mule; contributed by W. C. Benton, Middleburg, Va. Specimen 12750. Fracture of thoracic vertebræ, caused by crush in elevator; girl, 18 years old; laminectomy; death; contributed by Dr. E. A. Balloch, Washington, D. C. Specimen 12828. Fracture of cervical vertebræ and degeneration of spinal cord; man, age 25; laminectomy; death; contributed by Dr. E. A. Balloch, Washington, D. C. Specimen 12829. Fracture of femur from fall; woman, age 44; amputation; recovery; contributed by Dr. A. P. Hickling, Washington, D. C. Specimens 12822–12823. Osteoarthritis of knee, following shot injury forty years previously; loose bodies in joint; removed post-mortem; contributed by Dr. D. S. Lamb, Washington, D. C.

Tumors of limbs.—Specimen 12741. Sarcoma of leg; soldier; amputation; recovery; recurrence in lung; contributed by Maj. W. C. Borden, surgeon, U. S. Army. Specimen 12826. Sarcoma of tibia; soldier, age 22; removed by First Lieut. P. C. Field, assistant surgeon, U. S. Army. Specimen 12846. Sarcoma of thigh; man, age 62; tumor removed post-mortem; contributed by Dr. De W. Chadwick, Washington, D. C.

Retroperitoneal sarcoma.—Specimen 12825. Removed post-mortem; man, age 29; contributed by Dr. E. A. Balloch, Washington, D. C.

Brain and membranes.—Specimen 12734. Cerebral hemorrhage; man, age 26; 12735, man, age 38; 12803, man, age 55; 12807, man, age 56; contributed by Dr. D. S. Lamb, Washington, D. C. Specimens 12830–12831. Hemorrhage and old fracture of skull; trephining; death; contributed by Dr. D. P. Hickling, Washington, D. C. Specimen 12852. Abscess of brain; man, age 76; trephining; death; contributed by Dr. D. P. Hickling, Washington, D. C. Specimen 12801. Leptomeningitis; man, age 40; no history of injury; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12818. Meningitis in child, 3 years old; contributed by Dr. G. N. Acker, Washington, D. C. Specimen 12819. Chronic pachymeningitis, woman, age 55; contributed by Dr. D. P. Hickling, Washington, D. C.

The eye enucleated because of staphyloma; Specimen 12833, injury; 12853, choroiditis; 12927, panophthalmitis; 12833, iridocyclitis; 12926, 12832, 12834, 12692, all contributed by Dr. R. S. Lamb, Washington, D. C.

Heart and circulation.—Specimen 12813. Subpericardial hemorrhages; man, age 21, contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12858. Vegetative endocarditis; woman, age 23; rheumatism; contributed by Dr. D. S. Lamb, Washington, D. C. 12802. Hypertrophy, weight 18½ ounces; man, age 56; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12844. Hypertrophy and pericarditis; man, age 46; contributed by Dr. D. S. Lamb, Washington, D. C. Specimens 12840–12841. Hypertrophy, pericarditis and goiter; woman, age 60; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12862. Hypertrophy, weight 27 ounces, and pericarditis; woman, age 41; contributed by Dr. D. P. Hickling, Washington, D. C. Specimen 12748. Aneurism of aorta; soldier, age 31; contributed by Capt. W. P. Chamberlain, assistant surgeon, U. S. Army. Specimen 12921. Chronic adenitis; contributed by Maj. W. F. Lippitt, surgeon, U. S. Army.

Lungs.—Specimens 12836–12837. Abscess of lung in girl, age 14; due to iron rivet; contributed by Dr. J. W. Chappell, Washington, D. C. Specimen 12740. Sarcoma of lung, secondary to sarcoma of leg, 12741; contributed by Maj. W. S. Arthur, surgeon, U. S. Army. Specimen 12859. Cancer of lung; woman, age 43; had cancer of mamma, uterus, and glands; contributed by Dr. J. W. McClellan, Washington, D. C.

Teeth and mouth.—Specimen 12861. Tartar; contributed by Williams Donnally, D. D. S., Washington, D. C. Specimen 12871. Tartar; woman, age 35; had worn a plate without removal for seven years; contributed by J. E. McConnell, D. D. S. Specimen 12821. Salivary calculus; contributed by Dr. S. R. Karpeles, Washington, D. C. Anomalies of teeth; Specimen 12848; contributed by L. B. Rowland, D. D. S., Hagerstown, Md. Specimens 12742–12744. Contributed by C. F. Hugo, D. D. S., Washington, D. C. Specimens 12745–12746. Contributed by J. D. Milliken, dental surgeon, U. S. Army.

Stomach and intestines.—Specimen 12860. Gastro-enterostomy for cancer of stomach and pancreas; man, age 48; lived 1½ years afterwards; contributed by Dr. I. S. Stone, Washington, D. C. Specimen 12736. Sarcoma of intestines; contributed by Dr. C. G. Stone, Washington, D. C. Specimen 12851. Gangrenous vermiform appendix; contributed by First Lieut. H. H. Rutherford, assistant surgeon, U. S. Army.

Liver, pancreas, and spleen.—Specimens 12809–12811: Congenital syphilis of liver and spleen and hydrocele; child, 2 months old; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12753: Gall bladder removed because of inflammation; woman, age 49; recovery; contributed by Dr. I. S. Stone, Washington, D. C. Specimen 12806: Cancer of pancreas; man, age 63; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12808: Pigmented spleen, malaria; man, age 56; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12925: Cancer of spleen; general cancer; contributed by Dr. F. J. Shadd, Washington, D. C. Specimens 12867–12869: Leukemic spleen; weight, 66 ounces; with portal dilatation and erosion; man, age 24; contributed by Dr. N. D. Graham, Washington, D. C.

Urinary organs.—Specimen 12749: Cysts of kidney; soldier, age 35; removed by post-mortem; contributed by Dr. Ira C. Brown, contract surgeon, U. S. Army. Specimen 12922: Cysts of kidneys removed ante-mortem. Specimen 12932: Cysts of kidney removed post-mortem; contributed by Dr. J. T. Kelley, Washington, D. C. Specimen 12812: Embolism of kidney; man, age 63; heart disease; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12839: Abscess of kidney in horse following castration; contributed by United States College Veterinary Surgeons, Washington, D. C. Specimen 12754: Calculus and bullet in bladder forty years after shot wound; removed; death; contributed by Drs. D. C. Huffmann and F. W. Roush, National Military Home, Ohio. Specimen 12738: Rupture of uterus; contributed by Dr. H. D. Fry, Washington, D. C. Specimen 12827: Hydatidiform mole; contributed by Dr. V. B. Jackson, Washington, D. C. Specimen 12924: Much hypertrophy of mamma; contributed by Dr. George Ben Johnston, Richmond Va.

From Indian mounds.—Specimen 12872: Periostitis. Specimens 12874–12876: Syphilitic periostitis. Specimen 12864: Osteo-arthritis; received in exchange from U. S. National Museum.

Seventy-one models of diseases of skin were purchased from Doctor Baretta, of the St. Louis Hospital, Paris, and Dr. D. H. Goodwillie, of Yonkers, N. Y., presented to the Museum a series of 70 models in wax or plaster showing a variety of diseases and injuries.

Asst. Surg. E. H. Hartnett, U. S. Army, sent to the Museum the following interesting series of weapons collected by him from the natives of the Philippine Islands: Specimens 2857 and 2858, miscellaneous section. Decapitation axes used in battle by the Moros of Mindanao, P. I.

2859, 2860, and 2861. Borongs of the Moros of the Sulu, P. I.

2862, 2863, 2864, and 2872. Kris of the the Moros of Mindanao.

2865. Campilan of the Moros of Mindanao, P. I. Along the back of the blade are holes plugged with brass said to indicate the number of decapitations performed with the instrument.

2866, 2867, 2868. Bolos from the island of Panay and northern coast of Mindanao.

2869. Pira of the Moros of the island of Basilan, P. I.

2870. Ticon of the Moros, island of Mindanao, P. I.

2871. Spear of the Moros of Mindanao, P. I.

LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

The following table shows the additions made to the library during the fiscal year 1903–4:

Description.	On hand June 30, 1903.	Added during fiscal year.	Total June 30, 1904.
	Volumes.	*Volumes.*	*Volumes.*
Medical journals	44,694	1,329	46,023
Medical transactions	7,178	163	7,341
Bound theses	2,248	71	2,319
Bound pamphlets	2,870	5	2,875
Other medical books	91,417	1,892	93,309
Total	148,407	3,460	151,867
Medical theses	65,566	3,288	68,854
Medical pamphlets	187,206	6,334	193,540
Total	252,772	9,622	262,394

Of the total number of theses on hand June 30, 1903, there were 791 bound in 71 volumes during the year.

There were presented to the library during the year 618 books and 9,382 pamphlets and journals.

Volume IX, second series of the Index Catalogue, includes the letter "L," and forms a volume of 938 pages. It will be ready for distribution at the usual time. The appropriation for Volume X, second series, having been made, the manuscript is in course of preparation for the printer.

It was foreseen in 1896 that the available shelf room for the steadily increasing number of volumes would very soon be exhausted. An appropriation of $6,000 was requested for the construction of six iron book stacks similar to those now in use, including iron supports, stairway, perforated iron floor, and wood shelves. Year by year Congress has failed to make the appropriation and the amount of money asked for has of necessity been increased, not because any more extensive construction is now wanted than when first estimated for, but because the price of both material and workmanship seems to have doubled. Unless the appropriation, now estimated at $13,000, is allowed without further delay, the library will be unable to locate its own books without great delay and trouble. New books, for lack of shelf room, are stacked upon the floors and piled on top of the rows as near as possible to the section where they would naturally be placed if there were room enough. This library is recognized as the largest and most useful medical library in the world. It is in constant use by nearly every American university, medical library and society, and by hundreds of individual workers. The library force indexes practically all the existent literature of medicine in all its branches. The Index Catalogue of subjects, as well as authors, is a handbook in every great library at home and abroad. The shelves asked for are now absolutely necessary to the continuance of the efficiency of the library, and will, it is believed, if granted, be sufficient for the present collection and its increase for ten years.

CLASSIFICATION OF DISEASES.

Since 1895 until this year statistics of diseases and injuries in the Army have been based on an official nomenclature adopted at that time, the only modifications having been slight ones necessitated by advances in medical science and by changed conditions of service since the Spanish-American war during the continuance of which the classification was also temporarily abridged, as sufficient clerical force was not available for the compilation of full statistics.

The old nomenclature was a thoroughly scientific one, but was not comparable with the International Classification of Causes of Death, which may now be properly regarded as the general system of the country, it having been adopted by the Census Office, by all the registration States, by many of the nonregistration and by almost all of the registration cities for their local statistics.

In the interest of uniformity, therefore, beginning with this year, army statistics will henceforth be based on the International Classification, however, as morbidity as well as mortality statistics are compiled for the Army, and as many diseases are encountered in the Tropics which naturally are not classified separately under the international system, it has been found necessary to expand the detailed form of the census to meet army requirements.

The following is the list now in use:

I.—General Diseases.

(*a Epidemic diseases.*)

1. Typhoid fever.
2. Exanthematic typhus.
3. Relapsing fever.
4*a*. Malarial fever, intermittent.
4*b*. Malarial fever, remittent or continued.
4*c*. Malarial fever, pernicious.
4*d*. Malarial cachexia.
5. Smallpox.
6. Measles.
7. Scarlet fever.
8. Whooping cough.
9. Diphtheria.
10. Influenza.
11. Miliary fever.
12. Asiatic cholera.
13. Cholera nostras.
14*a*. Acute dysentery.
14*b*. Chronic dysentery.
15. Bubonic plague.
16. Yellow fever.
17. Leprosy.
18. Erysipelas.
19*a*. Beri-beri.
19*b*. Dengue.
19*c*. Mumps.
19*d*. Rubella.
19*e*. Varicella.
19*f*. Vaccinia.
19*g*. Other epidemic diseases.

(*b Other general diseases.*)

20. Purulent infection and septicemia.
21. Glanders and farcy.
22. Anthrax.
23. Rabies.
24. Actinomycosis, trichinosis, etc.
25. Pellagra.
26. Tuberculosis of the larynx.
27. Tuberculosis of the lungs.
28. Tuberculosis of the meninges.
29. Abdominal tuberculosis.

I.—General Diseases—Continued.

(*b Other general diseases*)—Continued.

30. Pott's disease.
31. Tuberculous abscess.
32. White swelling.
33. Tuberculosis of other organs.
34. General tuberculosis.
35. Scrofula.
36*a*. Syphilis, primary.
36*b*. Syphilis, secondary.
36*c*. Syphilis, tertiary.
36*d*. Syphilis, hereditary.
26*e*. Chancroid.
37*a*. Gonorrhea.
37*b*. Gonorrheal epididymitis and orchitis.
37*c*. Gonorrheal ophthalmia.
37*d*. Gonorrheal rheumatism.
39. Cancer and other malignant tumors of the buccal cavity.
40. Cancer and other malignant tumors of the stomach and liver.
41. Cancer and other malignant tumors of the peritoneum, intestines, and rectum.
44. Cancer and other malignant tumors of the skin.
45. Cancer and other malignant tumors of other organs and unspecified.
46. Other tumors.
47. Acute articular rheumatism.
48. Chronic rheumatism and gout.
49. Scurvy.
50. Diabetes.
51. Exophthalmic goitre.
52. Addison's disease.
53. Leukemia.
54. Anemia.
55. Other general diseases.
56*a*. Acute alcoholism.
56*b*. Delirium tremens.
56*c*. Chronic alcoholism.
57. Chronic lead poisoning.
58. Other chronic poisonings (occupational).
59*a*. Narcotic poisonings, chronic.
59*b*. Other chronic poisonings.

II.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.

60. Encephalitis.
61a. Meningitis.
61b. Meningitis, epidemic cerebro-spinal.
62. Progressive locomotor ataxia.
63. Other diseases of the spinal cord.
64. Cerebral congestion and hemorrhage.
65. Softening of the brain.
66. Paralysis without specified cause.
67. General paralysis.
68. Insanity.
69. Epilepsy.
70. Convulsions (eclampsia).
72. Tetanus.
73. Chorea.
74a. Neuralgia.
74b. Neuritis.
74c. Neurasthenia.
74d. Nostalgia.
74e. Other diseases of the nervous system.

Of the eye and its adnexa.

75a. Lids, diseases of.
75b. Lachrymal apparatus, diseases of.
75c. Conjunctivitis, acute.
75d. Conjunctivitis, chronic.
75e. Keratitis.
75f. Sclerotitis.
75g. Choroid, diseases of.
75h. Iritis.
75i. Retinitis.
75j. Snow-blindness.
75k. Asthenopia.
75l. Cataract.
75m. Glaucoma.
75n. Amaurosis.
75o. Night blindness.
75p. Other diseases of the eye.

Of the ear and its adnexa.

76a. Diseases of the external ear.
76b. Diseases of the tympanum.
76c. Diseases of the middle and internal ear.
76d. Deafness.
76e. Other diseases of the ear.

III.—DISEASES OF THE CIRCULATORY SYSTEM.

77. Pericarditis.
78. Acute endocarditis.
79. Organic diseases of the heart.
80a. Angina pectoris.
80b. Cardiac irritability.
81a. Aneurism.
81b. Other diseases of the arteries.
82. Embolism and thrombosis.
83a. Varicocele.
83b. Varicose veins.
83c. Hemorrhoids.
83d. Phlebitis.
83e. Other diseases of the veins
84a. Adenitis, non-suppurative, nonvenereal.
84b. Lymphangitis.
84c. Other diseases of the lymphatic system.
85. Hemorrhages.
86. Other diseases of the circulatory system.

IV.—DISEASES OF THE RESPIRATORY SYSTEM.

87a. Coryza.
87b. Chronic nasal catarrh.
87c. Nasal polypus.
87d. Other diseases of the nasal fossæ.
88. Diseases of the larynx.
89. Diseases of the thyroid body.
90. Acute bronchitis.
91. Chronic bronchitis.
92. Broncho-pneumonia.
93. Pneumonia.
94. Pleurisy.
95. Congestion and apoplexy of the lungs.
96. Gangrene of the lungs.
97. Asthma.
98. Pulmonary emphysema.
99. Other diseases of the respiratory system, phthisis excepted.

V.—DISEASES OF THE DIGESTIVE SYSTEM.

100a. Diseases of the salivary glands and ducts.
100b. Diseases of teeth, gums, and alveoli.
100c. Diseases of mouth and tongue.
101a. Tonsillitis.
101b. Other diseases of the pharynx.
102. Diseases of the esophagus.
103. Ulcer of the stomach.
104a. Dyspepsia.
104b. Gastritis.
104c. Other diseases of the stomach, except cancer.
106a. Diarrhea, acute.
106b. Diarrhea, chronic.
106c. Enteritis.
107. Intestinal parasites.
108a. Inguinal herniæ.
108b. Other herniæ.
108c. Intestinal obstruction.
109a. Fistula in ano.
109b. Other diseases of the intestines.
110. Acute yellow atrophy of the liver.
111. Hydatid tumors of the liver.
112. Cirrhosis of the liver.
113. Biliary calculi.
114a. Acute hepatitis.
114aa. Hepatic abscess.
114b. Jaundice, catarrhal.
114c. Other diseases of the liver.
115. Diseases of the spleen.
116. Simple peritonitis.
118. Appendicitis and abscesses of iliac fossa.
117. Other diseases of the digestive system, cancer and tuberculosis excepted.

VI.—DISEASES OF THE GENITO-URINARY SYSTEM AND ITS ADNEXA.

119. Acute nephritis.
120. Bright's disease.
121a. Pyelitis and pyelonephritis.
121b. Other diseases of the kidneys.
122a. Renal calculi.
122b. Vesical calculi.
123a. Cystitis.
123b. Other diseases of the bladder.
124a. Stricture of the urethra.
124b. Other diseases of the urethra.
125a. Prostatitis.
125b. Prostatic hypertrophy.
125c. Other diseases of the prostate.
126a. Balanitis, nongonorrheal.
126b. Paraphimosis.
126c. Phimosis.
126d. Hematocele.
126e. Hydrocele.
126f. Orchitis, nonvenereal.
126g. Other nonvenereal diseases of the genital organs.

VIII.—DISEASES OF THE SKIN AND CELLULAR TISSUE.

142. Gangrene.
143a. Carbuncle.
143b. Furuncle.
144a. Acute abscess, phlegmon.
144b. Adenitis, suppurative, nonvenereal.
144c. Inguinal lymphadenitis, suppurative.
145a. Corns and warts.
145b. Ingrowing nail.
145c. Chilblain.
145d. Ulcer.
145e. Dermatitis from poisonous plants.
145f. Erythemata.
145g. Herpes.
145h. Eczema and pemphigus.
145i. Impetigo and acne.
145j. Urticaria.
145k. Scabies.
145l. Dhobie itch.
145m. Other diseases of the skin and its adnexa.

IX.—Diseases of the Organs of Locomotion.

146*a*. Osteomyelitis.
146*b*. Caries and necrosis of bone, nontubercular.
146*c*. Periostitis.
146*d*. Other nontubercular diseases of the bones.
147*a*. Arthritis.
147*b*. Bunion.
147*c*. Synovitis.
147*d*. Other diseases of the joints, except tuberculosis and rheumatism.
149*a*. Muscular rheumatism and myalgia.
149*b*. Other diseases of the organs of locomotion.

XII.—Old Age.

154. Senile debility.

XIII.—External Causes.

155. Suicide by poison.
156. Suicide by asphyxia.
157. Suicide by hanging or strangulation.
158. Suicide by drowning.
159. Suicide by firearms.
160. Suicide by cutting instruments.
161. Suicide by jumping from high places.
162. Suicide by crushing.
163. Suicide by other means.
164. Fractures, exclusive of gunshot.
165*a*. Dislocations.
165*b*. Sprains.
165*c*. Strain, muscular.
166*a*. Abrasions and blisters (mechanical).

XIII.—External Causes—Continued.

166*b*. Compression of brain.
166*c*. Concussion of brain.
166*d*. Concussion of spine.
166*e*. Wounds, contused.
166*f*. Wounds, incised.
166*g*. Wounds, lacerated.
166*h*. Wounds, punctured.
166*i*. Wounds, gunshot.
166*j*. Crushing.
166*k*. Other traumatisms.
167. Burns and scalds.
168. Burns by corrosive substances.
169. Sunstroke.
170*a*. Frostbite.
170*b*. Freezing.
171. Electric shock.
172. Drowning.
173. Inanition (starvation, exclusive of disease)
174. Absorption of deleterious gases.
175*a*. Narcotic poisonings, acute.
175*b*. Corrosive and irritant poisonings, acute.
175*c*. Venomous bites, stings, and wounds.
175*d*. Other acute poisonings.
176*a*. Exhaustion from fatigue and exposure.
176*b*. Explosion.
176*c*. Suffocation, exclusive of disease.
176*d*. Foreign bodies, presence of.
176*e*. Other external violence.
176*f*. Homicide.
176*g*. Judicial execution.
176*h*. Self-maiming.
176*i*. Killed in battle.

UNIFORMITY IN MEDICO-MILITARY STATISTICS.

The International Commission for the the Unification of the Medical Statistics of Armies met in Madrid in April, 1903. The following delegates were present: Wurdinger, of Bavaria; Paalzow, of Prussia; Maistriau, of Belgium; Bondesen, of Denmark; Reig, Sanchez, and Castillo, of Spain; Antony and Alvernhe, of France; McCulloch, of Great Britain; Daniels, of Holland; Sforza, of Italy; Honda et Uyama, of Japan; Camolino, of Portugal; Tauber, of Russia; Lamberg, of Sweden; Schweigaard, of Norway; and O'Reilly and Heizmann, of the United States.

It was found that since the last meeting held in Paris in 1900 the number of countries publishing the international statistics had increased to nine. The announcement was made that many other countries were preparing to publish them in the near future.

The conference after a two days session, during which the subject of army statistics was thoroughly discussed, decided to add pleuritis and ulcus molle to the nomenclature which will now comprise 35 diseases, and to adopt two new tables.

According to the new arrangement, Table No. I provides for movement of sick by army corps (departments), absolute numbers; No. II, movement of sick by army corps (departments), proportionate numbers; No. III, movement of sick by arms of service; No. IV, movement of sick, by months; No. V, movement of sick in the larger garrisons; No. VI, movement of sick according to most important diseases; No. VII, most important diseases by arms of service; No. VIII, most important diseases by months; No. IX, deaths by rank, by length of service, and by age, and No. X, discharges from the army for physical disability, temporary or permanent, by rank, by length of service, and by age.

Statistics for the past year, classified in accordance with the recommendations of the Commission, will be found at the end of this report.

CONCLUSION.

In closing this report I desire to express my high appreciation of the intelligent and zealous devotion to duty which has characterized the officers of the Medical Department, the contract surgeons, and contract dental surgeons during the year. The chief surgeon on duty in the Philippine Islands has occupied an especially responsible position, and has discharged his duties in a manner most creditable to himself and to the Department.

Through the efforts of the efficient clerical force, under the direction of Mr. George A. Jones, chief clerk, who has exhibited a high degree of efficiency in performing the responsible duties attached to his position, the work of my office has been continuously kept up to date and conducted in a most satisfactory and systematic manner.

STATISTICAL TABLES.

The following tables show in detail the statistical data on which the statements of this report are based:

I. Numerical view of the effect of disease and injury on United States troops performing insular and home service in the year 1903, compared with the corresponding data for 1902 and for the decade 1892–1901.

II. Monthly mortality and prevalence of disease and injury in the Army at home and on insular service for 1903.

III. Admissions to sick report, discharges and deaths in the Army, with ratios per 1,000 of mean strength in which all available data for the decade 1892–1901 are placed in comparison with the year 1903.

IV. Admissions to sick report, discharges, and deaths in the Army and by races, with ratios per 1,000 of mean strength for the year 1903.

V. Admissions to sick report, discharges, and deaths in the Army at home and on insular service, with ratios per 1,000 of mean strength for the year 1903.

VI. Admissions to sick report, discharges, and deaths in the Army by arms of service, with ratios per 1,000 of mean strength for the year 1903.

INTERNATIONAL SERIES.

Tables I to X, inclusive.

Respectfully submitted:

R. M. O'Reilly,
Surgeon-General, U. S. Army.

Hon. William H. Taft,
Secretary of War.

TABLE I.—*Numerical view of the effect of disease and injury on United States troops performing insular and home service in the year 1903 compared with corresponding data for the year 1902 and for the decade 1892–1901.*

	U. S. Army, year 1903, and comparisons with 1902.								U. S. Army, decade 1892–1901.
	Cuba and Porto Rico.	Pacific Islands and China.	Total islands and China.	United States (continental).	Total U. S. Army.	White troops.	Colored troops.	Filipino troops.	
Mean strength	1,561	23,818	25,379	42,264	67,643	59,671	3,183	4,789	41,253
Total admissions to sick report	2,384	44,767	47,151	51,008	98,159	88,322	3,265	6,572	717,494
Per 1,000 of mean strength	1,527.23	1,879.54	1,857.88	1,206.89	1,451.13	1,480.15	1,025.76	1,372.32	1,739.27
Per 1,000 for previous year	1,300.24	2,144.75	2,077.38	1,343.77	1,716.51	1,706.33	1,897.74	1,707.21	....
Admissions for disease	1,938	40,521	42,459	40,637	83,096	74,490	2,452	6,154	624,259
Per 1,000 of mean strength	1,241.51	1,701.28	1,673	961.51	1,228.45	1,248.34	770.34	1,285.03	1,513.26
Per 1,000 for previous year	1,043.37	1,991.84	1,916.18	1,099.18	1,514.29	1,459.19	1,703.49	1,630.34	....
Admissions for injury	446	4,246	4,692	10,371	15,063	13,832	813	418	93,235
Per 1,000 of mean strength	285.72	178.27	184.88	245.39	222.68	231.80	255.42	87.29	226.01
Per 1,000 for previous year	256.87	152.91	161.20	244.60	202.22	211.14	194.25	76.87	....
Discharges for disability, all causes	31	53	84	1,498	1,582	1,493	40	49	7,918
Per 1,000 of mean strength	19.86	2.23	3.31	35.44	23.39	25.02	12.57	10.23	19.19
Per 1,000 for previous year	20.16	14.33	14.79	32.14	23.32	24.51	26.68	2.69	....
Discharges for disease	30	50	80	1,382	1,462	1,379	35	48	6,667
Per 1,000 of mean strength	19.22	2.10	3.15	32.70	21.61	23.11	11	10.02	16.16
Per 1,000 for previous year	17.72	12.21	12.65	27.15	19.78	20.68	25.04	1.86	....
Discharges for injury	1	3	4	116	120	114	5	1	1,251
Per 1,000 of mean strength	.64	.13	.17	2.74	1.77	1.91	1.57	.21	3.03
Per 1,000 for previous year	2.44	2.12	2.14	4.98	3.54	3.83	1.64	.83	....
Deaths from all causes	3	375	378	251	629	490	36	103	5,719
Per 1,000 of mean strength	1.92	15.74	14.89	5.94	9.30	8.21	11.31	21.51	13.86
Per 1,000 for previous year	6.72	24.31	22.90	7.83	15.49	14.40	24.11	24.04	....
Deaths from disease	2	299	301	174	475	358	30	87	3,969
Per 1,000 of mean strength	1.28	12.55	11.86	4.12	7.02	6	9.42	18.17	9.62
Per 1,000 for previous year	3.36	21.08	19.66	5.66	12.78	11.66	20.36	22.59	....
Deaths from injury	1	76	77	77	154	132	6	16	1,750
Per 1,000 of mean strength	.64	3.19	3.03	1.82	2.28	2.21	1.89	3.34	4.24
Per 1,000 for previous year	3.36	3.23	3.24	2.16	2.71	2.74	3.75	1.45	....
Number of days lost from sickness	29,340	575,160	604,500	747,976	1,352,476	....	....	....	....
Number of men constantly noneffective from sickness	80.38	1,575.78	1,656.16	2,049.25	3,705.41	....	....	....	....
Per 1,000 of mean strength	51.50	66.16	65.26	48.49	54.78	....	....	....	....
Per 1,000 for previous year	46.18	68.82	66.72	53.34	60.27	....	....	....	....

TABLE II.—*Monthly mortality and prevalence of disease and injury in the Army at home and on insular service, for 1903.*

Month.	United States (continental).							Pacific Islands and China.							Cuba and Porto Rico.							Total Army.						
					Per 1,000 of mean strength.							Per 1,000 of mean strength.							Per 1,000 of mean strength.							Per 1,000 of mean strength.		
	Mean strength.	Admissions.	Deaths.	Constantly sick.	Admissions.	Deaths.	Constantly sick.	Mean strength.	Admissions.	Deaths.	Constantly sick.	Admissions.	Deaths.	Constantly sick.	Mean strength.	Admissions.	Deaths.	Constantly sick.	Admissions.	Deaths.	Constantly sick.	Mean strength.	Admissions.	Deaths.	Constantly sick.	Admissions.	Deaths.	Constantly sick.
Jan	44,103	4,950	19	2,416.74	112.24	0.43	54.80	23,947	4,607	51	1,763.29	192.38	2.13	73.64	1,740	239	...	85.13	137.36	....	48.93	69,790	9,796	70	4,265.16	140.36	1.00	61.11
Feb	43,861	4,936	24	2,376.36	112.54	.55	54.18	24,242	3,856	34	1,763.68	159.06	1.40	72.75	1,709	191	...	85.11	111.76	....	49.80	69,812	8,983	58	4,225.14	128.67	.83	60.52
Mar	42,711	4,808	24	2,263.48	112.57	.56	53.00	24,894	3,997	30	1,680.32	160.56	1.21	67.50	1,685	201	1	86.10	119.29	0.59	51.10	69,290	9,006	55	4,029.90	129.98	.79	58.16
Apr	42,257	4,191	24	2,082.93	99.18	.57	49.29	24,977	4,158	32	1,632.20	166.47	1.28	65.35	1,658	171	1	70.20	103.14	.60	42.34	68,892	8,520	57	3,785.33	123.67	.83	54.95
May	41,919	4,120	22	2,008.03	98.28	.52	47.90	24,694	3,887	37	1,574.55	157.40	1.50	63.76	1,641	223	...	77.32	135.89	....	47.12	68,254	8,230	59	3,659.90	120.58	.86	53.62
June	41,771	3,655	14	1,847.83	87.50	.34	44.24	24,322	3,966	25	1,659.90	163.06	1.03	68.25	1,636	213	...	79.10	130.20	....	48.35	67,729	7,834	39	3,586.83	115.67	.58	52.96
July	40,787	4,009	17	1,901.97	98.29	.42	46.63	24,497	4,084	38	1,660.58	166.71	1.55	67.78	1,612	221	...	87.23	137.10	....	54.11	66,896	8,314	55	3,649.77	124.28	.82	54.56
Aug	40,932	4,064	22	1,928.32	99.29	.54	47.11	23,582	4,078	29	1,633.97	172.93	1.23	69.29	1,608	233	...	93.29	144.90	....	58.02	66,122	8,375	51	3,655.58	126.66	.77	55.29
Sept	40,894	3,889	20	1,914.80	95.10	.49	46.82	23,252	3,635	27	1,541.37	156.33	1.16	66.29	1,594	206	1	79.57	129.23	.63	49.92	65,740	7,730	48	3,535.73	117.58	.73	53.78
Oct	41,614	3,856	20	1,899.35	92.66	.48	45.65	22,895	3,395	23	1,485.81	148.29	1.00	64.90	1,491	217	...	86.52	145.54	....	58.03	66,000	7,468	43	3,471.68	113.15	.65	52.60
Nov	42,365	4,004	22	1,960.90	94.51	.52	46.29	22,765	2,782	32	1,359.23	122.21	1.41	59.71	1,183	149	...	69.57	125.95	....	58.81	66,313	6,935	54	3,389.70	104.58	.81	51.12
Dec	43,953	4,526	23	2,009.32	102.97	.52	45.72	21,747	2,322	17	1,169.10	106.77	.78	53.76	1,174	120	...	65.19	102.21	....	55.53	66,874	6,968	40	3,243.61	104.20	.60	48.50
Total..	42,264	51,008	251	2,049.25	1,206.89	5.94	48.49	23,818	44,767	375	1,575.78	1,879.54	15.74	66.16	1,561	2,384	3	80.38	1,527.23	1.92	51.50	67,643	98,159	629	3,705.41	1,451.13	9.30	54.78

TABLE III.—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, in which all available data for the decade, 1892–1901, are placed in comparison with the year 1903.*

	U. S. Army, decade 1892-1901.						U. S. Army, year 1903.					
Mean strength	41,253						67,643					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	7,582	18.40	38	0.09	856	2.07	348	5.14	1	0.01	30	0.44
Malarial fever, intermittent	113,614	275.41	2	.005	9	.02	11,230	166.02	....	....	....	....
Malarial fever, remittent or continued	30,982	75.13	5	.012	98	.24	2,066	30.54	....	....	4	.06
Malarial fever, pernicious	546	1.32	1	.002	189	.46	41	.61	....	....	28	.41
Malarial cachexia	6,042	11.65	159	.39	34	.08	271	4.01	5	.07	2	.03
Smallpox	369	.89	....	....	88	.21	39	.58	....	....	3	.04
Measles	4,674	11.33	8	.02	53	.13	459	6.79	....	....	....	....
Scarlet fever	68	.16	....	....	4	.01	11	.16	....	....	....	....
Whooping cough	43	.10	....	....	....	....	....	....	....	....	....	....
Diphtheria	232	.56	....	....	9	.02	26	.38	....	....	....	....
Influenza	16,555	40.14	....	....	23	.06	2,330	34.45	....	....	....	....
Asiatic cholera	....	....	....	....	1	.002	149	2.20	....	....	96	1.42
Cholera nostras	1,356	3.29	....	....	1	.002	47	.69	....	....	....	....
Acute dysentery	11,816	28.64	14	.03	351	.85	1,710	25.28	....	....	29	.43
Chronic dysentery	5,394	13.08	209	.51	348	.84	841	12.43	85	1.26	21	.31
Yellow fever	1,026	2.49	....	....	159	.39	6	.09	....	....	....	....
Leprosy	....	....	....	....	....	....	1	.01	....	....	....	....
Erysipelas	463	1.12	....	....	14	.03	48	.71	....	....	1	.01
Beri-beri	....	....	....	....	....	....	636	9.42	9	.13	25	.37
Dengue	5,278	12.79	....	....	1	.002	2,463	36.41	....	....	....	....
Mumps	3,884	9.41	....	....	....	....	492	7.27	....	....	....	....
Rubella	335	.81	....	....	....	....	35	.52	....	....	....	....
Varicella	112	.27	....	....	1	.002	31	.46	....	....	....	....
Vaccinia	15,600	37.81	1	.002	....	....	1,495	22.10	....	....	....	....
Other epidemic diseases	92	.22	....	....	....	....	1	.01	....	....	....	....
Total for epidemic diseases	226,063	548.00	437	1.06	2,239	5.43	24,776	366.28	100	1.48	239	3.53
Purulent infection and septicemia	66	.16	2	.005	38	.09	11	.16	....	....	8	.12
Glanders and farcy	2	.005	1	.002	....	....	....	....	....	....	....	....
Anthrax	2	.005	....	....	....	....	1	.01	....	....	....	....
Tuberculosis of the lungs	1,583	3.84	737	1.79	264	.64	263	3.89	189	2.79	36	.53
Syphilis and results	6,275	15.21	551	1.34	16	.04	1,585	23.42	219	3.23	4	.05
Chancroid and results	11,510	27.90	18	.04	....	....	2,159	31.92	....	....	....	....
Gonorrhea and results	30,857	74.80	165	.40	3	.007	6,503	96.14	95	1.41	....	....
Cancer and other malignant tumors	89	.22	17	.04	31	.08	20	.29	5	.07	8	.11
Acute articular rheumatism	2,199	5.33	20	.05	7	.02	627	9.27	1	.01	....	....
Chronic rheumatism and gout	3,774	9.14	261	.63	2	.005	347	5.13	61	.90	....	....

Scurvy	3	.007	....	....	....	....	2	.03	....	....	....	....
Anemia	1,101	2.67	24	.06	10	.02	68	1.01	4	.06	2	.03
Acute and chronic alcoholism	9,597	23.26	26	.06	65	.16	1,614	23.86	11	.17	11	.16
Delirium tremens	273	.66	....	....	40	.10	56	.83	1	.01	1	.01
Narcotic poisonings, chronic	194	.47	22	.05	7	.02	24	.35	10	.15	1	.01
Other general diseases	587	1.42	166	.40	43	.10	1,274	18.79	25	.36	14	.18
Total for other general diseases	68,112	165.11	2,010	4.87	526	1.28	14,554	215.16	621	9.18	85	1.26
Meningitis including cerebro spinal fever	166	.40	16	.04	80	.19	11	.16	1	.01	4	.05
Diseases of brain and spinal cord	2,402	5.82	348	.84	76	.18	58	.84	21	.30	7	.09
Insanity	673	1.63	485	1.18	6	.01	72	1.06	75	1.11	1	.01
Tetanus	15	.04	....	....	11	.03	3	.04	....	....	3	.04
Other diseases of the nervous system	11,119	26.95	231	.56	17	.04	1,426	21.07	105	1.56	2	.02
Total for nervous system	14,375	34.84	1,080	2.62	190	.46	1,570	23.21	202	2.99	17	.25
Total for the eye and its adnexa	6,306	15.29	339	.82	....	....	1,132	16.73	69	1.02	....	....
Total for the ear and its adnexa	4,451	10.79	301	73	6	.01	597	8.83	45	.67	....	....
Diseases of the heart	2,272	5.50	526	1.28	165	.40	353	5.22	113	1.67	22	.31
Varicocele	1,129	2.74	66	.16	....	....	307	4.54	5	.07	....	....
Other diseases of the arteries and veins	2,494	6.05	123	.30	28	.07	795	11.76	6	.07	2	.03
Adenitis nonsuppurative (nonvenereal)	2,160	5.24	12	.03	....	....	287	4.24	....	....	....	....
Other diseases of the lymphatic system	317	.77	8	.02	2	.005	45	.66	....	....	....	....
Total for the circulatory system	8,372	20.29	735	1.78	195	.47	1,787	26.42	124	1.83	24	.35
Diseases of the nose	6,022	14.59	27	.06	1	.002	1,451	21.44	3	.04	....	....
Bronchitis	26,516	64.28	41	.10	3	.007	4,072	60.20	3	.04	1	.01
Pneumonia	1,522	3.69	18	.04	223	.54	240	3.54	....	....	29	.42
Pleurisy	1,291	3.13	41	.10	11	.03	206	3.05	11	.16	3	.04
Other diseases of the respiratory system, phthisis excepted	6,511	15.78	86	.21	22	.05	389	5.75	25	.36	3	.03
Total for the respiratory system	41,862	101.48	213	.52	260	.63	6,358	93.99	42	.62	36	.53
Tonsillitis and other diseases of the pharynx	23,181	56.19	....	....	2	.005	3,798	56.15	....	....	....	....
Gastritis	8,285	20.08	36	.09	17	.04	1,315	19.44	7	.10	2	.03
Diarrhea	83,393	202.15	67	.16	105	.25	7,753	114.61	6	.09	3	.04
Enteritis	4,422	10.72	21	.05	68	.16	740	10.94	22	.33	11	.17
Hernia	1,835	4.45	433	1.05	2	.005	245	3.62	51	.76	....	....
Peritonitis	94	.23	3	.007	39	.09	8	.12	1	.01	4	.06
Appendicitis and abscess of iliac fossæ	814	1.97	25	.06	58	.14	208	3.07	5	.07	8	.12
Other diseases of the digestive system, cancer and tuberculosis excepted	42,556	103.16	199	.48	106	.26	6,214	91.86	20	.28	21	.28
Total for the digestive system	164,580	398.95	784	1.90	397	.96	20,281	299.82	112	1.66	49	.72

TABLE III.—*Admissions to sick report, discharges, and deaths in the Army, with ratios per 1,000 of mean strength, in which all available data for the decade, 1892–1901, are placed in comparison with the year 1903*—Continued.

	U. S. Army, decade 1892-1901.						U. S. Army, year 1903.					
Mean strength	41,253						67,643.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases of the kidney	1,106	2.68	99	0.24	128	0.31	166	2.45	17	0.25	19	0.28
Other nonvenereal diseases of the genito-urinary system	4,693	11.38	96	.23	4	.01	950	14.04	20	.29		
Total for the genito-urinary system and its adnexa	5,799	14.06	195	.47	132	.32	1,116	16.50	37	.55	19	.28
Total for the skin and cellular tissue	49,450	119.87	54	.13	6	.01	7,604	112.41	14	.21	2	.03
Periostitis	459	1.11	17	.04	1	.002	63	.93	2	.03		
Arthritis and synovitis	2,787	6.76	150	.36	1	.002	276	4.08	20	.29		
Muscular rheumatism and myalgia	19,797	47.99	145	.35			2,301	34.02	9	.13		
Other diseases of the organs of locomotion	1,502	3.64	183	.44			333	4.92	64	.93		
Total for the organs of locomotion	24,545	59.50	495	1.20	2	.005	2,973	43.95	95	1.40		
Senile debility							3	.04	1	.01		
Total ill-defined diseases	10,344	25.07	24	.06	16	.04	345	5.10	1	.01	4	.06
Total for disease	624,259	1,513.26	6,667	16.16	3,969	9.62	83,096	1,228.45	1,462	21.61	475	7.02
Fractures, exclusive of gunshot	3,106	7.53	185	.45	69	.17	[a] 614	9.08	25	.37	13	.19
Dislocations	1,179	2.86	28	.07	1	.002	243	3.59	4	.06	3	.04
Abrasions and blisters, burns and scalds	8,598	20.81	2	.005	2	.005	1,322	19.54				
Compression and concussion of brain	238	.58	9	.02	24	.06	40	.59			3	.04
Wounds, incised	5,922	14.56	27	.07	117	.28	[a] 1,224	18.09	12	.18	14	.21
Wounds, lacerated, contused, and punctured	11,983	29.05	43	.10	12	.03	[a] 2,162	31.96	9	.13	2	.03
Wounds, gunshot	3,878	9.40	642	1.56	900	2.18	[a] 196	2.90	45	.67	56	.83
Other traumatisms	52,175	126.48	283	.69	134	.32	8,828	130.50	25	.36	19	.27
Sunstroke	979	2.37	20	.05	26	.06	198	2.93			1	.01
Electric shock	19	.05	1	.002	5	.01	1	.01			1	.01

Drowning	7	.02	....	....	365	.88	(a)	....	....	....	32	.47
Narcotic poisonings, acute	157	.38	....	....	52	.13	a 9	.13	....	....	4	.06
Corrosive and irritant poisonings, acute	858	2.08	3	.007	28	.07	a 16	.24	....	....	6	.09
Venomous bites, stings, and wounds	2,097	5.08	5	.01	1	.002	162	2.39	....	....	....	....
Exhaustion from fatigue and exposure	2,039	4.94	3	.007	14	.03	48	.71	....	....	....	....
Total for injuries	93,235	226.01	1,251	3.03	1,750	4.24	15,063	222.68	120	1.77	154	2.28
Grand total	717,494	1,739.27	7,918	19.19	5,719	13.86	98,159	1,451.13	1,582	23.39	629	9.03

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[a] For purposes of comparison with the decade suicides, homicides, and killed in battle for the year are reported in this table to the several injuries by which they were produced, and are as follows:

"Fractures, not shot:" Homicide, 1 case, 1 death. "Wounds, incised:" Homicide, 3; suicide, 3; killed in battle, 6; total, 12. "Wounds, punctured:" Homicide, 1. "Wounds, gunshot:" Homicide, 4; suicide, 22; killed in battle, 7; total, 33. "Drowning:" Suicide, 2. "Narcotic poison, acute:" Suicide, 4. "Corrosive and irritant poison, acute:" Suicide, 2. "Suffocation (by hanging):" Suicide, 1.

TABLE IV.—*Admissions to sick report, discharges, and deaths in the Army, and by races, with ratios per 1,000 of mean strength, for the year 1903.*

	The Army.						White.						Colored.						Filipinos.					
Mean strength	67,643.						59,671.						3,183.						4,789.					
Causes of admission to sick report.	Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
I. GENERAL DISEASES.																								
a. Epidemic diseases.																								
Typhoid fever	348	5.14	1	0.01	30	0.41	338	5.66	1	0.02	28	0.47	5	1.57	.....	.....	1	0.31	5	1.04	.....	.....	1	0.21
Malarial fever:																								
Intermittent	11,230	166.02	.....	.....	.....	.....	8,993	150.71	.....	.....	.....	.....	96	30.16	.....	.....	.....	.....	2,141	447.07	.....	.....	.....	.....
Remittent or continued	2,066	30.54	.....	.....	4	.06	1,669	27.97	.....	.....	3	.05	19	5.97	.....	.....	.....	.....	378	78.93	.....	.....	1	.21
Pernicious	41	.61	.....	.....	28	.41	27	.45	.....	.....	17	.28	.....	.....	.....	.....	.....	.....	14	2.92	.....	.....	11	2.30
Malarial cachexia	271	4.01	5	.07	2	.03	256	4.29	4	.07	2	.03	4	1.26	1	0.31	.....	.....	11	2.30	.....	.....	.....	.....
Smallpox	39	.58	.....	.....	3	.04	30	.50	.....	.....	3	.05	2	.63	.....	.....	.....	.....	7	1.46	.....	.....	.....	.....
Measles	459	6.79	.....	.....	.....	.....	455	7.63	.....	.....	.....	.....	1	.31	.....	.....	.....	.....	3	.63	.....	.....	.....	.....
Scarlet fever	11	.16	.....	.....	.....	.....	11	.18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria	26	.38	.....	.....	.....	.....	26	.44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Influenza	2,330	34.45	.....	.....	.....	.....	2,225	37.29	.....	.....	.....	.....	104	32.67	.....	.....	.....	.....	1	.21	.....	.....	.....	.....
Asiatic cholera	149	2.20	.....	.....	96	1.42	105	1.76	.....	.....	68	1.14	.....	.....	.....	.....	.....	.....	44	9.19	.....	.....	28	5.85
Cholera nostras	47	.69	.....	.....	.....	.....	38	.64	.....	.....	.....	.....	3	.94	.....	.....	.....	.....	6	1.25	.....	.....	.....	.....
Acute dysentery	1,710	25.28	.....	.....	29	.43	1,628	27.28	.....	.....	28	.47	10	3.14	.....	.....	.....	.....	72	15.03	.....	.....	1	.21
Chronic dysentery	841	12.43	85	1.26	21	.31	822	13.78	85	1.42	19	.32	9	2.83	.....	.....	1	.31	10	2.09	.....	.....	1	.21
Yellow fever	6	.09	.....	.....	.....	.....	6	.10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leprosy	1	.01	.....	.....	.....	.....	1	.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Erysipelas	48	.71	.....	.....	1	.01	42	.70	.....	.....	1	.02	6	1.89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beri-beri	636	9.42	9	.13	25	.37	22	.37	4	.07	3	.05	.....	.....	.....	.....	.....	.....	614	128.21	5	1.04	22	4.59
Dengue	2,463	36.41	.....	.....	.....	.....	2,318	38.85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	145	30.28	.....	.....	.....	.....
Mumps	492	7.27	.....	.....	.....	.....	466	7.81	.....	.....	.....	.....	4	1.26	.....	.....	.....	.....	22	4.59	.....	.....	.....	.....
Rubella	35	.52	.....	.....	.....	.....	34	.57	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.21	.....	.....	.....	.....
Varicella	31	.46	.....	.....	.....	.....	31	.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vaccinia	1,495	22.10	.....	.....	.....	.....	1,483	24.85	.....	.....	.....	.....	11	3.46	.....	.....	.....	.....	1	.21	.....	.....	.....	.....
Other epidemic diseases	1	.01	.....	.....	.....	.....	1	.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total epidemic diseases	24,776	366.28	100	1.48	239	3.53	21,027	352.38	94	1.58	172	2.88	274	86.08	1	.31	2	.63	3,475	725.62	5	1.04	65	13.57

b. Other general diseases.																								
Purulent infection and septicemia	11	.16			8	.12	8	.13			6	.10							3	.63			2	.42
Anthrax	1	.01					1	.02																
Actinomycosis, trichinosis, etc	14	.21			1	.01	13	.22											1	.21			1	.21
Tuberculosis:																								
Of the larynx	4	.06	2	.03	1	.01	4	.07	2	.03	1	.02												
Of the lungs	263	3.89	189	2.79	36	.53	213	3.57	159	2.66	22	.37	15	4.71	6	1.89	10	3.14	35	7.31	24	5.01	4	.84
Abdominal tuberculosis	2	.03			2	.03	1	.02			1	.02	1	.31			1	.31						
Pott's disease	5	.07	2	.03			5	.08	2	.03														
Tuberculous abscess	1	.01					1	.02																
White swelling	2	.03	1	.01			2	.03	1	.02														
Tuberculosis of other organs	20	.30	7	.10	2	.03	14	.23	4	.07			3	.94	1	.31	2	.63	3	.63	2	.42		
General tuberculosis	3	.04			4	.06	2	.03			3	.05	1	.31			1	.31						
Syphilis:																								
Primary	214	3.16					206	3.45					5	1.57					3	.63				
Secondary	1,277	18.88	195	2.88	1	.01	1,235	20.70	188	3.15	1	.02	30	9.42	6	1.89			12	2.51	1	.21		
Tertiary	93	1.37	23	.34	3	.04	83	1.39	20	.34	3	.05	8	2.51	2	.63			2	.42	1	.21		
Hereditary	1	.01	1	.01			1	.02	1	.02														
Chancroid	2,159	31.92					2,016	33.79					104	32.67					39	8.14				
Gonorrhea	5,423	80.17	20	.30			5,082	85.17	19	.32			180	56.55	1	.31			161	33.62				
Gonorrheal epididymitis and orchitis	876	12.95	9	.13			802	13.44	8	.13			35	10.99	1	.31			39	8.14				
Gonorrheal ophthalmia	29	.43	14	.21			25	.42	14	.23			1	.31					3	.63				
Gonorrheal rheumatism	175	2.59	52	.77			164	2.75	49	.82			4	1.26	1	.31			7	1.46	2	.42		
Cancer and other malignant tumors:																								
Of the buccal cavity	4	.06	1	.01	1	.01	4	.07	1	.02	1	.02												
Of the stomach, liver	5	.07			4	.06	5	.08			4	.07												
Of the peritoneum, intestines, rectum	3	.04			2	.03	2	.03			1	.02							1	.21			1	.21
Of other organs and unspecified	8	.12	4	.06	1	.01	6	.10	3	.05	1	.02	1	.31					1	.21	1	.21		
Other tumors	83	1.23	2	.03			75	1.26	2	.03			5	1.57					3	.63				
Acute articular rheumatism	627	9.27	1	.01			567	9.50					43	13.51	1	.31			17	3.55				
Chronic rheumatism and gout	347	5.13	61	.90			316	5.30	56	.94			27	8.48	5	1.57			4	.84				
Scurvy	2	.03					2	.03																
Diabetes	9	.13	4	.06	1	.01	9	.15	4	.07							1	.31						
Exophthalmic goiter	1	.01					1	.02																
Addison's disease					1	.01					1	.02												
Leukemia	1	.01			1	.01	1	.02			1	.02												
Anemia	68	1.01	4	.06	2	.03	66	1.11	4	.07	1	.02	1	.31					1	.21			1	.21
Other general diseases	1,122	16.56	5	.07			841	14.09	5	.08			10	3.14					271	56.59				
Acute alcoholism	1,541	22.78			8	.12	1,503	25.19			8	.13	36	11.31					2	.42				
Delirium tremens	56	.83	1	.01	1	.01	55	.92	1	.02	1	.02	1	.31										
Chronic alcoholism	73	1.08	11	.17	3	.04	69	1.16	11	.18	3	.05	3	.94					1	.21				
Chronic lead poisoning	6	.09	2	.03			6	.10	2	.03														
Narcotic poisonings, chronic	24	.35	10	.15	1	.01	24	.40	10	.17	1	.02												
Other chronic poisonings	1	.01			1	.01	1	.02			1	.02												
Total other general diseases	14,554	215.16	621	9.18	85	1.26	13,431	225.08	566	9.49	61	1.02	514	161.48	24	7.54	15	4.71	609	127.15	31	6.47	9	1.88

TABLE IV.—*Admissions to sick report, discharges, and deaths in the Army, and by races, with ratios per 1,000 of mean strength, for year 1903*—Cont'd.

Causes of admission to sick report.	The Army.						White.						Colored.						Filipinos.					
Mean strength	67,643.						59,671.						3,183.						4,789.					
	Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																								
Meningitis	9	0.13	1	0.01	3	0.04	7	0.12	1	0.02	1	0.02	1	0.31			1	0.31	1	0.21			1	0.21
Meningitis, epidemic, cerebro-spinal	2	.03			1	.01	2	.03			1	.02												
Progressive locomotor ataxia	6	.09	3	.04			6	.10	3	.05														
Other diseases of the spinal cord	7	.10	4	.06			7	.12	4	.07														
Cerebral congestion and hemorrhage	11	.16	1	.01	4	.06	10	.17	1	.02	4	.07	1	.31										
Softening of the brain	1	.01			1	.01	1	.02			1	.02												
Paralysis without specified cause	30	.44	9	.13	1	.01	29	.49	8	.13	1	.02	1	.31	1	0.31								
General paralysis	3	.04	4	.06	1	.01	3	.05	4	.07	1	.02												
Insanity	72	1.06	75	1.11	1	.01	70	1.17	74	1.24	1	.02	1	.31	1	.31			1	.21				
Epilepsy	83	1.23	39	.58			77	1.29	37	.62			3	.94	1	.31			3	.63	1	0.21		
Convulsions (eclampsia)	1	.01					1	.02																
Tetanus	3	.04			3	.04	2	.03			2	.03							1	.21			1	.21
Chorea	4	.06	2	.03			3	.05	2	.03			1	.31										
Neuralgia	724	10.70	4	.06			661	11.08	4	.07			41	12.88					22	4.59				
Neuritis	97	1.43	16	.24	1	.01	91	1.53	16	.27	1	.02	3	.94					3	.63				
Neurasthenia	113	1.67	10	.15			111	1.86	10	.17			2	.63										
Nostalgia	8	.12					8	.13																
Other diseases of the nervous system	396	5.85	34	.50	1	.01	377	6.32	33	.55	1	.02	9	2.83	1	.31			10	2.09				
Total, nervous system	1,570	23.21	202	2.99	17	.25	1,466	24.57	197	3.30	14	.23	63	19.79	4	1.26	1	.31	41	8.56	1	.21	2	.42
Of the eye and its adnexa.																								
Lids, diseases of	94	1.39					88	1.47					4	1.26					2	.42				
Lachrymal apparatus, diseases of	16	.24	2	.03			14	.23	1	.02					1	.31			2	.42				
Conjunctivitis:																								
Acute	614	9.08					496	8.31					27	8.48					91	19.00				
Chronic	40	.59	4	.06			35	.59	3	.05			2	.63	1	.31			3	.63				
Keratitis	44	.65	4	.06			28	.47	4	.07			5	1.57					11	2.30				
Choroid, diseases of	3.	.01	3	.01			3	.05	3	.05														

Iritis	56	.83	3	.04			53	.89	2	.03			1	.31					2	.42	1	.21		
Retinitis	39	.58	8	.12			33	.55	8	.13			6	1.89										
Snow blindness	4	.06	1	.01			3	.05	1	.02			1	.31										
Asthenopia	13	.19	1	.01			13	.22	1	.02														
Cataract	5	.07	2	.03			3	.05	2	.03			1	.31					1	.21				
Glaucoma	2	.03	1	.01			1	.02	1	.02									1	.21				
Amaurosis	14	.21	12	.18			13	.22	12	.20			1	.31										
Night blindness	5	.07	1	.01			5	.08	1	.02														
Other diseases of the eye and its adnexa	183	2.71	27	.40			176	2.95	25	.42			1	.31					6	1.25	2	.42		
Total eye and its adnexa	1,132	16.73	69	1.02			964	16.15	64	1.07			49	15.39	2	.63			119	24.85	3	.63		
Of the ear and its adnexa.																								
Diseases of the external ear	64	.95					59	.99					3	.94					2	.42				
Diseases of the tympanum	8	.12	1	.01			8	.13	1	.02														
Diseases of the middle and internal ear	486	7.18	39	.58			467	7.83	39	.65			7	2.20					12	2.51				
Deafness	12	.18	5	.07			12	.20	5	.08														
Other diseases of the ear and its adnexa	27	.40					27	.45																
Total ear and its adnexa	597	8.83	45	.67			573	9.60	45	.75			10	3.11					14	2.92				
III. DISEASES OF THE CIRCULATORY SYSTEM.																								
Pericarditis	5	.07			1	.01	4	.07			1	.02	1	.31										
Acute endocarditis	4	.06			1	.01	4	.07			1	.02												
Organic diseases of the heart	145	2.14	86	1.27	19	.28	131	2.20	82	1.37	11	.18	7	2.20	2	.63	4	1.26	7	1.46	2	.42	4	.84
Angina pectoris	31	.46	6	.09	1	.01	27	.45	5	.08	1	.02	3	.94					1	.21	1	.21		
Cardiac irritability	137	2.03	20	.30			133	2.23	20	.34			2	.63					2	.42				
Aneurism	2	.03			2	.03	1	.02			1	.02	1	.31			1	.31						
Other diseases of the arteries	2	.03					2	.03																
Embolism and thrombosis	8	12	1	.01			7	.12	1	.02									1	.21				
Varicocele	307	4.54	5	.07			304	5.09	5	.08			2	.63					1	.21				
Varicose veins	57	.84	1	.01			55	.92	1	.02									2	.42				
Hemorrhoids	658	9.73	1	.01			599	10.04	1	.02			55	17.28					4	.84				
Phlebitis	25	.37	3	.04			23	.39	3	.05									2	.42				
Adenitis, nonsuppurative (nonvenereal)	287	4.24					267	4.47					11	3.46					9	1.88				
Lymphangitis	34	.50					33	.55											1	.21				
Other lymphatic system	11	.16					10	.17					1	.31										
Hemorrhages	43	.64					40	.67					3	.94										
Other diseases of the circulatory system	31	.46	1	.01			26	.44	1	.02			3	.94					2	.42				
Total circulatory system	1,787	26.42	124	1.83	21	.35	1,666	27.92	119	1.99	15	.25	89	27.96	2	.63	5	1.57	32	6.68	3	.63	4	.84
IV. DISEASES OF THE RESPIRATORY SYSTEM.																								
Coryza	1,371	20.27					1,221	20.46					93	29.22					57	11.90				
Chronic nasal catarrh	72	1.06	3	.04			71	1.19	3	.05			1	.31										
Nasal polypus	3	.04					3	.05																
Other diseases of the nasal fossæ	5	.07					5	.08																

TABLE IV.—*Admissions to sick report, discharges, and deaths in the Army, and by races, with ratios per 1,000 of mean strength, for year 1903*—Cont'd.

	The Army.						White.						Colored.						Filipinos.					
Mean strength	67,643.						59,671.						3,183.						4,789.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
IV. DISEASES OF THE RESPIRATORY SYSTEM—Continued.																								
Diseases of the larynx	243	3.59	1	0.01			220	3.69	1	0.02			16	5.03					7	1.46				
Diseases of the thyroid body	11	.16	2	.03			11	.18	2	.03														
Acute bronchitis	3,874	57.27			1	0.01	3,539	59.31			1	0.02	166	52.15					169	35.29				
Chronic bronchitis	198	2.93	3	.04			177	2.97	3	.05			12	3.77					9	1.88				
Broncho-pneumonia	24	.35			5	.07	23	.39			4	.07							1	.21			1	0.21
Pneumonia	216	3.19			24	.35	183	3.07			22	.37	13	4.08			1	0.31	20	4.18			1	.21
Pleurisy	206	3.05	11	.16	3	.04	181	3.03	10	.17	2	.03	11	3.46	1	0.31	1	.31	14	2.92				
Congestion and apoplexy of the lungs	8	.12			1	.01	8	.13															1	.21
Asthma	91	1.35	18	.27	1	.01	79	1.32	15	.25			2	.63			1	.31	10	2.09	3	0.63		
Pulmonary emphysema	11	.16	3	.04			11	.18	3	.05														
Other diseases of the respiratory system, phthisis excepted	25	.37	1	.01	1	.01	21	.35	1	.02			3	.94					1	.21			1	.21
Total respiratory system	6,358	93.99	42	.62	36	.53	5,753	96.41	38	.64	29	.49	317	99.59	1	.31	3	.94	288	60.14	3	.63	4	.84
V. DISEASES OF THE DIGESTIVE SYSTEM.																								
Diseases of the salivary glands and ducts	1	.01											1	.31										
Diseases of the teeth, gums, and alveoli	575	8.50	4	.06			537	9.00	4	.07			23	7.23					15	3.13				
Diseases of the mouth and tongue	109	1.61					95	1.59					12	3.77					2	.42				
Tonsillitis	2,889	42.71					2,686	45.01					185	58.12					18	3.76				
Other diseases of the pharynx	909	13.44					880	14.75					27	8.48					2	.42				
Diseases of the esophagus			2	.03					2	.03														
Ulcer of the stomach	2	.03					1	.02					1	.31										
Dyspepsia	2,606	38.53	1	.01			2,368	39.68	1	.02			148	46.50					90	18.79				
Gastritis	1,315	19.44	7	.10	2	.03	1,211	20.29	7	.12	1	.02	33	10.37			1	.31	71	14.83				
Other diseases of the stomach, except cancer	49	.72	2	.03	1	.01	40	.67	2	.03			1	.31					8	1.67			1	.21
Diarrhea:																								
Acute	7,560	111.76			1	.01	6,984	117.04			1	.02	83	26.08					493	102.94				
Chronic	193	2.85	6	.09	2	.03	191	3.20	6	.10	2	.03	2	.63										

Enteritis	740	10.94	22	.33	11	.17	700	11.73	22	.37	11	.18	25	7.85					15	3.13				
Intestinal parasites	137	2.03					137	2.30																
Inguinal herniæ	226	3.34	45	.67			214	3.59	45	.75			6	1.89					6	1.25				
Other herniæ	19	.28	6	.09			16	.27	6	.10			2	.63					1	.21				
Intestinal obstruction	8	.12			3	.04	8	.13			3	.05												
Fistula in ano	63	.93					58	.97					3	.94					2	.42				
Other diseases of the intestines	2,359	34.88	7	.10			2,093	35.08	7	.12			93	29.22					173	36.12				
Acute yellow atrophy of the liver	1	.01			1	.01	1	.02			1	.02												
Cirrhosis of the liver	5	.07			1	.01	5	.08			1	.02												
Biliary calculi	19	.28			1	.01	19	.32			1	.02												
Acute hepatitis	26	.38					25	.42											1	.21				
Hepatic abscess	25	.37			12	.18	23	.39			10	.17							2	.42			2	.42
Jaundice, catarrhal	171	2.53					167	2.80					1	.31					3	.63				
Other diseases of the liver	50	.74	1	.01			48	.80	1	.02			2	.63										
Diseases of the spleen	4	.06	1	.01	1	.01	4	.07	1	.02	1	.02												
Simple peritonitis	8	.12	1	.01	4	.06	8	.13	1	.02	4	.07												
Appendicitis and abscesses of iliac fossæ	208	3.07	5	.07	8	.12	202	3.39	5	.08	7	.12	6	1.89			1	.31						
Other diseases of the digestive system, cancer and tuberculosis excepted	4	.06	2	.03	1	.01	4	.07	2	.03	1	.02												
Total for the digestive system	20,281	299.82	112	1.66	49	.72	18,725	313.80	112	1.88	44	.71	654	205.47			2	.63	902	188.34			3	.63
VI. DISEASES OF THE GENITO-URINARY SYSTEM AND ITS ADNEXA.																								
Acute nephritis	52	.77	1	.01	4	.06	45	.75	1	.02	4	.07							7	1.46				
Bright's disease	54	.80	14	.21	14	.21	53	.89	14	.23	13	.22					1	.31	1	.21				
Pyelitis and pyelonephritis	9	.13	2	.03			9	.15	2	.03														
Other diseases of the kidneys	24	.35			1	.01	19	.32					3	.94			1	.31	2	.42				
Renal calculi	27	.40					24	.40											3	.63				
Vesical calculi	2	.03					2	.03																
Cystitis	124	1.83	1	.01			117	1.96	1	.02			6	1.89					1	.21				
Other diseases of the bladder	69	1.02	11	.17			64	1.07	11	.18			5	1.57										
Stricture of the urethra	85	1.26					79	1.32					6	1.89										
Other diseases of the urethra	30	.44	1	.01			29	.49	1	.02									1	.21				
Prostatitis	9	.13					8	.13					1	.31										
Prostatic hypertrophy	1	.01					1	.02																
Balanitis, nongonorrheal	43	.64					42	.70											1	.21				
Paraphimosis	12	.18					12	.20																
Phimosis	211	3.12					180	3.02					20	6.28					11	2.30				
Hematocele																								
Hydrocele	60	.89	2	.03			56	.94	2	.03									4	.84				
Orchitis, nonvenereal	94	1.39	1	.01			78	1.31	1	.02			5	1.57					11	2.30				
Other nonvenereal diseases of the genital organs	210	3.10	4	.06			199	3.33	3	.05			5	1.57	1	.31			6	1.25				
Total genito-urinary system and its adnexa	1,116	16.50	37	.55	19	.28	1,017	17.04	36	.60	17	.28	51	16.02	1	.31	2	.63	48	10.02				

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	The Army.						White.						Colored.						Filipinos.					
Mean strength	67,643.						59,671.						3,183.						4,789.					
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	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
VIII. DISEASES OF THE SKIN AND CELLULAR TISSUE.																								
Gangrene	2	0.03	1	0.01	1	0.01	2	0.03	1	0.02	1	0.02	....	....	....	....	....	....	....	....	....	....	....	....
Carbuncle	95	1.40	....	....	1	.01	80	1.34	....	....	1	.02	6	1.89	....	....	....	....	9	1.88	....	....	....	....
Furuncle	2,432	35.95	....	....	....	....	2,286	38.31	....	....	....	....	61	19.16	....	....	....	....	85	17.75	....	....	....	....
Acute abscess, phlegmon	1,297	19.17	1	.01	....	....	1,148	19.24	1	.02	....	....	36	11.31	....	....	....	....	113	23.60	....	....	....	....
Adenitis, suppurative (nonvenereal)	100	1.48	1	.01	....	....	88	1.47	1	.02	....	....	1	.31	....	....	....	....	11	2.30	....	....	....	....
Inguinal lymphadenitis, suppurative	3	.04	....	....	....	....	2	.03	....	....	....	....	....	....	....	....	....	....	1	.21	....	....	....	....
Corns and warts	268	3.96	2	.03	....	....	246	4.12	2	.03	....	....	14	4.40	....	....	....	....	8	1.67	....	....	....	....
Ingrowing nail	335	4.95	....	....	....	....	301	5.04	....	....	....	....	9	2.83	....	....	....	....	25	5.22	....	....	....	....
Chilblain	4	.06	....	....	....	....	4	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ulcer	507	7.49	6	.09	....	....	448	7.51	6	.10	....	....	5	1.57	....	....	....	....	54	11.27	....	....	....	....
Dermatitis from poisonous plants	263	3.89	....	....	....	....	252	4.22	....	....	....	....	2	.63	....	....	....	....	9	1.88	....	....	....	....
Erythemata	101	1.49	....	....	....	....	101	1.69	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Herpes	186	2.75	....	....	....	....	167	2.80	....	....	....	....	11	3.46	....	....	....	....	8	1.67	....	....	....	....
Eczema and pemphigus	525	7.76	1	.01	....	....	495	8.30	1	.02	....	....	8	2.51	....	....	....	....	22	4.59	....	....	....	....
Impetigo and acne	67	.99	....	....	....	....	58	.97	....	....	....	....	3	.94	....	....	....	....	6	1.25	....	....	....	....
Urticaria	78	1.15	....	....	....	....	75	1.26	....	....	....	....	2	.63	....	....	....	....	1	.21	....	....	....	....
Scabies	184	2.72	....	....	....	....	177	2.97	....	....	....	....	4	1.26	....	....	....	....	3	.63	....	....	....	....
Dhobie itch	524	7.75	....	....	....	....	407	6.82	....	....	....	....	4	1.26	....	....	....	....	113	23.60	....	....	....	....
Other diseases of the skin and its adnexa	633	9.36	2	.03	....	....	573	9.60	2	.03	....	....	16	5.03	....	....	....	....	41	9.19	....	....	....	....
Total skin and cellular tissue	7,604	112.41	14	.21	2	.03	6,910	115.80	14	.23	2	.03	182	57.18	....	....	....	....	512	106.91	....	....	....	....
IX. DISEASES OF THE ORGANS OF LOCOMOTION.																								
Osteomyelitis	4	.06	1	.01	....	....	4	.07	1	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Caries and necrosis of bone, nontubercular	18	.27	3	.04	....	....	15	.25	3	.05	....	....	1	.31	....	....	....	....	2	.42	....	....	....	....
Periostitis	63	.93	2	.03	....	....	56	.94	2	.03	....	....	6	1.89	....	....	....	....	1	.21	....	....	....	....
Other nontubercular diseases of the bones	50	.74	14	.21	....	....	50	.84	14	.23	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Arthritis	105	1.55	7	.10	....	....	95	1.59	7	.12	....	....	8	2.51	....	....	....	....	2	.42	....	....	....	....
Bunion	42	.62	5	.07	....	....	36	.60	5	.08	....	....	5	1.57	....	....	....	....	1	.21	....	....	....	....
Synovitis	171	2.53	13	.19	....	....	156	2.61	13	.22	....	....	10	3.14	....	....	....	....	5	1.04	....	....	....	....
Other diseases of the joints, except tuberculosis and rheumatism	103	1.52	26	.38	....	....	98	1.64	25	.42	....	....	3	.94	....	....	....	....	2	.42	1	.21	....	....
Muscular rheumatism and myalgia	2,301	34.02	9	.13	....	....	2,021	33.87	9	.15	....	....	195	61.26	....	....	....	....	85	17.75	....	....	....	....
Other diseases of the organs of locomotion	116	1.71	15	.22	....	....	108	1.81	11	.23	....	....	4	1.26	....	....	....	....	4	.84	1	.21	....	....
Total organs of locomotion	2,973	43.95	95	1.40	....	....	2,639	44.22	93	1.56	....	....	232	72.88	....	....	....	....	102	21.30	2	.42	....	....
XII. OLD AGE.																								
Senile debility	3	.04	1	.01	....	....	3	.05	1	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....
XIV. ILL-DEFINED DISEASES.																								
Malingering	69	1.02	....	....	....	....	67	1.12	....	....	....	....	....	....	....	....	....	....	2	.42	....	....	....	....
Under observation, undiagnosed and unknown	276	4.08	....	....	4	.06	249	4.17	....	....	4	.07	17	5.34	....	....	....	....	10	2.09	....	....	....	....
Total ill-defined diseases	345	5.10	1	.01	4	.06	316	5.30	....	....	4	.07	17	5.34	....	....	....	....	12	2.51	....	....	....	....
Total for disease	83,096	1,228.45	1,462	21.61	475	7.02	71,490	1,248.31	1,379	23.11	358	6.00	2,452	770.34	35	11.00	30	9.42	6,154	1,285.03	48	10.02	87	18.17
XIII. EXTERNAL CAUSES.																								
Suicide																								
By poison	3	.04	....	....	6	.09	3	.05	....	....	5	.08	....	....	....	....	1	.31	....	....	....	....	....	....
By hanging or strangulation	....	....	....	....	1	.01	....	....	....	....	1	.02	....	....	....	....	....	....	....	....	....	....	....	....
By drowning	....	....	....	....	2	.03	....	....	....	....	2	.03	....	....	....	....	....	....	....	....	....	....	....	....
By firearms	3	.04	....	....	22	.33	2	.03	....	....	19	.32	....	....	....	....	1	.31	....	....	....	....	2	.42
By cutting instruments	1	.01	....	....	3	.04	....	....	....	....	2	.03	....	....	....	....	....	....	1	.21	....	....	1	.21
Fractures, exclusive of gunshot	613	9.07	25	.37	12	.18	566	9.48	23	.39	11	.18	27	8.48	1	.31	1	.31	20	4.18	1	.21	....	....
Dislocations	243	3.59	4	.06	3	.04	232	3.89	4	.07	2	.03	9	2.83	....	....	....	....	2	.42	....	....	1	.21
Sprains	3,529	52.17	9	.13	....	....	3,253	54.52	9	.15	....	....	213	66.91	....	....	....	....	63	13.15	....	....	....	....
Strain, muscular	881	13.02	....	....	....	....	799	13.39	....	....	....	....	64	20.11	....	....	....	....	18	3.76	....	....	....	....
Abrasions and blisters (mechanical)	989	14.62	....	....	....	....	906	15.18	....	....	....	....	23	7.23	....	....	....	....	60	12.53	....	....	....	....
Compression of brain	10	.15	....	....	1	.01	9	.15	....	....	1	.02	....	....	....	....	....	....	1	.21	....	....	....	....
Concussion of brain	30	.44	....	....	2	.03	27	.45	....	....	2	.03	3	.94	....	....	....	....	....	....	....	....	....	....
Concussion of spine	5	.07	....	....	1	.01	3	.05	....	....	1	.02	1	.31	....	....	....	....	1	.21	....	....	....	....
Wounds:																								
Contused	682	10.08	....	....	....	....	635	10.64	....	....	....	....	26	8.17	....	....	....	....	21	4.39	....	....	....	....
Incised	1,222	18.06	12	.18	2	.03	1,090	18.26	12	.20	2	.03	65	20.42	....	....	....	....	67	13.99	....	....	....	....
Lacerated	1,030	15.23	8	.12	....	....	961	16.10	8	.13	....	....	53	16.65	....	....	....	....	16	3.34	....	....	....	....
Punctured	450	6.65	1	.01	1	.01	414	6.94	1	.02	1	.02	23	7.23	....	....	....	....	13	2.71	....	....	....	....
Gunshot	192	2.84	45	.67	23	.34	157	2.63	44	.74	17	.29	16	5.03	1	.31	2	.63	20	4.18	....	....	4	.84
Crushing	2	.03	1	.01	....	....	2	.03	1	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Other traumatisms	4,200	62.08	12	.18	14	.21	3,885	65.11	10	.17	14	.23	246	77.28	2	.63	....	....	69	14.41	....	....	....	....
Burns and scalds	314	4.64	....	....	....	....	291	4.88	....	....	....	....	14	4.40	....	....	....	....	9	1.88	....	....	....	....
Burns by corrosive substances	19	.28	....	....	....	....	19	.32	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sunstroke	198	2.93	....	....	1	.01	185	3.10	....	....	1	.02	4	1.26	....	....	....	....	9	1.88	....	....	....	....
Frostbite	50	.74	3	.04	....	....	35	.59	2	.03	....	....	15	4.71	1	.31	....	....	....	....	....	....	....	....

TABLE IV.—*Admissions to sick report, discharges, and deaths in the Army, and by races, with ratios per 1,000 of mean strength, for year 1903*—Cont'd.

	The Army.						White.						Colored.						Filipinos.					
Mean strength	67,643.						59,671						3,183						4,789					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
XIII. EXTERNAL CAUSES—continued.																								
Electric shock	1	0.01			1	0.01	1	0.02			1	0.02												
Drowning					30	.44					28	.47											2	0.42
Absorption of deleterious gases	4	.06			1	.01	4	.07			1	.02												
Narcotic poisonings, acute	6	.09					5	.08					1	0.31										
Corrosive and irritant poisonings, acute	16	.24			4	.06	16	.27			4	.07												
Venomous bites, stings, and wounds	162	2.39					139	2.33					4	1.26					19	3.97				
Other acute poisonings	126	1.86			1	.01	111	1.91			1	.02	5	1.57					7	1.46				
Exhaustion from fatigue and exposure	48	.71					46	.77					1	.31					1	.21				
Suffocation, exclusive of disease	3	.04			1	.01	3	.05			1	.02												
Foreign bodies, presence of	28	.41					27	.45											1	.21				
Homicide	3	.04			9	.13	3	.05			7	.12					1	.31					1	.21
Killed in battle					13	.19					8	.13											5	1.04
Total external causes	15,063	222.68	120	1.77	154	2.28	13,832	231.80	114	1.91	132	2.21	813	255.42	5	1.57	6	1.89	418	87.29	1	.21	16	3.34
Grand total	98,159	1,451.13	1,582	[a]23.39	629	9.30	88,322	1,480.15	1,493	25.02	490	8.21	3,265	1,025.76	40	12.57	36	11.31	6,572	1,372.32	49	10.23	103	21.51

[a] Mean strength includes officers.

TABLE V.—*Admissions to sick report, discharges, and deaths in the Army at home and on insular service, with ratios per 1,000 of mean strength for the year 1903.*

	United States (continental).						Cuba and Porto Rico.						Pacific Islands and China.						Total islands.					
Mean strength	42,264						1,561						23,818						25,379					
Causes of admission to sick report.	Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.		Admissions.		Dis-charges.		Deaths.		Admissions.		Dis charges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
I. GENERAL DISEASES.																								
a. Epidemic diseases.																								
Typhoid fever	246	5.82	1	0.02	12	0.28	3	1.92					99	4.16			18	0.76	102	4.02			18	0.71
Malarial fever:																								
Intermittent	2,141	50.66					95	60.86					8,994	377.61					9,089	358.14				
Remittent or continued	330	7.81					17	10.89					1,719	72.17			4	.17	1,736	68.41			4	.16
Pernicious	3	.07			2	.05	1	.64					37	1.55			26	1.09	38	1.50			26	1.02
Malarial cachexia	97	2.30	5	.12			1	.64					173	7.26			2	.08	174	6.86			2	.08
Smallpox	12	.28											27	1.13			3	.13	27	1.06			3	.12
Measles	418	9.89					1	.64					40	1.68					41	1.62				
Scarlet fever	11	.26																						
Diphtheria	26	.62																						
Influenza	2,192	51.86					104	66.62					34	1.43					138	5.44				
Asiatic cholera													149	6.26			96	4.03	149	5.87			96	3.78
Cholera nostras	20	.47											27	1.13					27	1.06				
Acute dysentery	155	3.67			3	.07	11	7.05					1,544	64.83			26	1.09	1,555	61.27			26	1.02
Chronic dysentery	243	5.75	85	2.01	4	.09	4	2.56					594	24.94			17	.71	598	23.56			17	.67
Yellow fever	6	.14																						
Leprosy	1	.02																						
Erysipelas	41	.97			1	.02							7	.29					7	.28				
Beri beri	1	.02	4	.09									635	26.66	5	.21	25	1.05	635	25.02	5	.20	25	.99
Dengue	9	.21					4	2.56					2,450	102.86					2,454	96.70				
Mumps	401	9.49					12	7.69					79	3.32					91	3.59				
Rubella	33	.78											2	.08					2	.08				
Varicella	28	.66											3	.13					3	.12				
Vaccinia	1,364	32.27					13	8.33					118	4.95					131	5.16				
Other epidemic diseases	1	.02																						
Total epidemic diseases	7,779	184.06	95	2.25	22	.52	266	170.40					16,731	702.45	5	.21	217	9.11	16,997	669.73	5	.20	217	8.55

TABLE V.—*Admissions to sick report, discharges, and deaths in the Army at home and on insular service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	United States (continental).						Cuba and Porto Rico.						Pacific Islands and China.						Total islands.					
Mean strength	42,264						1,561						23,818						25,379					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
I. GENERAL DISEASES—continued.																								
b. Other general diseases.																								
Purulent infection and septicemia	5	0.12			3	0.07							6	0.25			5	0.21	6	0.24			5	0.20
Anthrax	1	.02																						
Actinomycosis, trichinosis, etc	1	.02					12	7.69					1	.04			1	.04	13	.51			1	.04
Tuberculosis of the larynx	4	.09	2	0.05	1	.02																		
Tuberculosis of the lungs	153	3.62	163	3.86	29	.69	6	3.84	1	0.64			104	4.37	25	1.05	7	.29	110	4.33	26	1.02	7	.28
Abdominal tuberculosis	2	.05			2	.05																		
Pott's disease	3	.07	2	.05									2	.08					2	.08				
Tuberculous abscess													1	.04					1	.04				
White swelling	1	.02	1	.02									1	.04					1	.04				
Tuberculosis of other organs	14	.33	5	.12	2	.05							6	.25	2	.08			6	.24	2	.08		
General tuberculosis	1	.02			2	.05							2	.08			2	.08	2	.08			2	.08
Syphilis:																								
Primary	123	2.91					11	7.05					80	3.36					91	3.59				
Secondary	821	19.43	186	4.40	1	.02	46	29.47	8	5.12			410	17.21	1	.04			456	17.97	9	.35		
Tertiary	54	1.28	20	.47	2	.05	2	1.28	2	1.28			37	1.55	1	.04	1	.04	39	1.54	3	.12	1	.04
Hereditary	1	.02	1	.02																				
Chancroid	1,188	28.11					85	51.45					886	37.20					971	38.26				
Gonorrhea	2,972	70.32	20	.47			140	89.69					2,311	97.03					2,451	96.58				
Gonorrheal epididymitis and orchitis	448	10.60	8	.19			47	30.11	1	.64			381	16.00					428	16.86	1	.04		
Gonorrheal ophthalmia	15	.35	13	.31			1	.64	1	.64			13	.55					14	.55	1	.04		
Gonorrheal rheumatism	119	2.82	50	1.18			6	3.84					50	2.10	2	.08			56	2.21	2	.08		
Cancer and other malignant tumors:																								
Of the buccal cavity	2	.05	1	.02	1	.02							2	.08					2	.08				
Of the stomach, liver	5	.12			4	.09																		
Of the peritoneum, intestines, rectum	1	.02			1	.02							2	.08			1	.04	2	.08			1	.04
Of other organs and unspecified	5	.12	3	.07	1	.02							3	.13	1	.04			3	.12	1	.04		
Other tumors	54	1.28	2	.05			2	1.28					27	1.13					29	1.14				
Acute articular rheumatism	441	10.43	1	.02			12	7.69					174	7.31					186	7.33				

Chronic rheumatism and gout	228	5.39	61	1.44	....	....	8	5.12	....	....	....	....	111	4.66	....	....	....	....	119	4.69	....	....	....	....
Scurvy	....	....	....	....	....	....	....	....	....	....	....	....	2	.08	....	....	....	....	2	.08	....	....	....	....
Diabetes	7	.17	4	.09	1	.02	1	.64	....	....	....	....	1	.04	....	....	....	....	2	.08	....	....	....	....
Exophthalmic goiter	....	....	....	....	....	....	....	....	....	....	....	....	1	.04	....	....	....	....	1	.04	....	....	....	....
Addison's disease	....	....	....	....	1	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Leukemia	....	....	....	....	....	....	....	....	....	....	....	....	1	.04	....	....	1	.04	1	.04	....	....	1	.04
Anemia	43	1.02	4	.09	....	....	2	1.28	....	....	....	....	23	.97	....	....	2	.08	25	.99	....	....	2	.08
Other general diseases	337	7.97	5	.12	....	....	26	16.66	....	....	....	....	759	31.87	....	....	....	....	785	30.93	....	....	....	....
Acute alcoholism	1,041	24.63	....	....	6	.14	80	51.25	....	....	....	....	420	17.63	....	....	2	.08	500	19.70	....	....	2	.08
Delirium tremens	37	.88	1	.02	....	....	4	2.56	....	....	....	....	15	.63	....	....	1	.04	19	.75	....	....	1	.04
Chronic alcoholism	51	1.21	11	.26	2	.05	2	1.28	....	....	....	....	20	.84	....	....	1	.04	22	.87	....	....	1	.04
Chronic lead poisoning	5	.12	2	.05	....	....	....	....	....	....	....	....	1	.04	....	....	....	....	1	.04	....	....	....	....
Narcotic poisonings, chronic	15	.35	10	.24	....	....	....	....	....	....	....	....	9	.38	....	....	1	.04	9	.35	....	....	1	.04
Other chronic poisonings	1	.02	....	....	1	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total other general diseases	8,199	191.00	576	13.63	60	1.42	493	315.82	13	8.33	....	....	5,862	246.12	32	1.34	25	1.05	6,355	250.40	45	1.77	25	.99
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																								
Meningitis	7	.17	1	.02	2	.05	1	.64	....	....	....	....	1	.04	....	....	1	.04	2	.08	....	....	1	.04
Meningitis, epidemic, cerebro-spinal	1	.02	....	....	....	....	....	....	....	....	....	....	1	.04	....	....	1	.04	1	.04	....	....	1	.04
Progressive locomotor ataxia	4	.09	3	.07	....	....	1	.64	....	....	....	....	1	.04	....	....	....	....	2	.08	....	....	....	....
Other diseases of the spinal cord	5	.12	4	.09	....	....	....	....	....	....	....	....	2	.08	....	....	....	....	2	.08	....	....	....	....
Cerebral congestion and hemorrhage	11	.26	1	.02	4	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Softening of the brain	....	....	....	....	....	....	....	....	....	....	....	....	1	.04	....	....	1	.04	1	.04	....	....	1	.04
Paralysis without specified cause	18	.43	9	.21	....	....	....	....	....	....	....	....	12	.50	....	....	1	.04	12	.47	....	....	1	.04
General paralysis	3	.07	4	.09	1	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Insanity	43	1.02	71	1.68	1	.02	4	2.56	4	2.56	....	....	25	1.05	....	....	....	....	29	1.14	4	.16	....	....
Epilepsy	55	1.30	35	.83	....	....	5	3.20	2	1.28	....	....	23	.97	2	.08	....	....	28	1.10	4	.16	....	....
Convulsions (eclampsia)	1	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tetanus	....	....	....	....	....	....	....	....	....	....	....	....	3	.13	....	....	3	.13	3	.12	....	....	3	.12
Chorea	4	.09	2	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Neuralgia	491	11.62	4	.09	....	....	18	11.53	....	....	....	....	215	9.03	....	....	....	....	233	9.18	....	....	....	....
Neuritis	55	1.30	16	.38	....	....	2	1.28	....	....	....	....	40	1.68	....	....	1	.04	42	1.65	....	....	1	.04
Neurasthenia	68	1.61	10	.24	....	....	2	1.28	....	....	....	....	43	1.81	....	....	....	....	45	1.77	....	....	....	....
Nostalgia	5	.12	....	....	....	....	....	....	....	....	....	....	3	.13	....	....	....	....	3	.12	....	....	....	....
Other diseases of nervous system	192	4.54	33	.78	....	....	9	5.77	1	.64	....	....	195	8.19	....	....	1	.04	204	8.04	1	.04	1	.04
Total nervous system	963	22.79	193	4.57	8	.19	42	26.91	7	4.48	....	....	565	23.72	2	.08	9	.38	607	23.92	9	.35	9	.35
Of the eye and its adnexa.																								
Lids, diseases of	67	1.59	....	....	....	....	4	2.56	....	....	....	....	23	.97	....	....	....	....	27	1.06	....	....	....	....
Lachrymal apparatus, diseases of	8	.19	2	.05	....	....	....	....	....	....	....	....	8	.34	....	....	....	....	8	.32	....	....	....	....
Conjunctivitis:																								
Acute	342	8.09	....	....	....	....	18	11.53	....	....	....	....	254	10.66	....	....	....	....	272	10.72	....	....	....	....
Chronic	23	.54	3	.07	....	....	1	.64	1	.64	....	....	16	.67	....	....	....	....	17	.67	1	.04	....	....
Keratitis	28	.66	4	.09	....	....	....	....	....	....	....	....	16	.67	....	....	....	....	16	.63	....	....	....	....
Choroid, diseases of	3	.07	3	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Iritis	37	.88	2	.05	....	....	....	....	....	....	....	....	19	.80	1	.04	....	....	19	.75	1	.04	....	....

TABLE V.—*Admissions to sick report, discharges, and deaths in the Army at home and on insular service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	United States (continental).						Cuba and Porto Rico.						Pacific Islands and China.						Total islands.					
Mean strength	42,264						1,561						23,818						25,379					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE—continued.																								
Of the eye and its adnexa—Continued.																								
Retinitis	29	0.69	8	0.19									10	0.42					10	0.39				
Snow-blindness	4	.09	1	.02																				
Asthenopia	6	.14	1	.02			1	0.64					6	.25					7	.28				
Cataract	4	.09	2	.05									1	.04					1	.04				
Glaucoma	1	.02	1	.02									1	.04					1	.04				
Amaurosis	13	.31	12	.28									1	.04					1	.04				
Night blindness			1	.02									5	.21					5	.20				
Other diseases of the eye and its adnexa	89	2.11	25	.59			4	2.56					90	3.78	2	0.08			94	3.70	2	0.08		
Total eye and its adnexa	654	15.47	65	1.54			28	17.94	1	0.64			450	18.89	3	.13			478	18.83	4	.16		
Of the ear and its adnexa.																								
Diseases of the external ear	27	.64					4	2.56					33	1.39					37	1.46				
Diseases of the tympanum	6	.14	1	.02									2	.08					2	.08				
Diseases of the middle and internal ear	212	5.02	39	.92			17	10.89					257	10.79					274	10.80				
Deafness	11	.26	5	.12									1	.04					1	.04				
Other diseases of the ear and its adnexa	23	.54											4	.17					4	.16				
Total ear and its adnexa	279	6.60	45	1.06			21	13.45					297	12.47					318	12.53				
III. DISEASES OF THE CIRCULATORY SYSTEM.																								
Pericarditis	3	.07			1	0.02							2	.08					2	.08				
Acute endocarditis	2	.05											2	.08			1	0.04	2	.08			1	0.04
Organic diseases of the heart	102	2.41	83	1.96	9	.21			1	.64	1	0.64	43	1.81	2	.08	9	.38	43	1.69	3	.12	10	.39
Angina pectoris	18	.43	5	.12	1	.02	3	1.92					10	.42	1	.04			13	.51	1	.04		

Cardiac irritability	86	2.03	20	.47			2	1.28					49	2.06					51	2.01				
Aneurism	2	.05			1	.02					1	.64											1	.04
Other diseases of the arteries	1	.02											1	.04					1	.04				
Embolism and thrombosis	5	.12	1	.02									3	.13					3	.12				
Varicocele	207	4.90	5	.12			9	5.77					91	3.82					100	3.94				
Varicose veins	33	.78	1	.02			2	1.28					22	.92					24	.95				
Hemorrhoids	399	9.44	1	.02			12	7.69					247	10.37					259	10.21				
Phlebitis	11	.26	3	.07			1	.64					13	.55					14	.55				
Adenitis, nonsuppurative (nonvenereal)	141	3.34					12	7.69					134	5.63					146	5.75				
Lymphangitis	15	.35					3	1.92					16	.67					19	.75				
Other diseases of the lymphatic system	8	.19											3	.13					3	.12				
Hemorrhages	33	.78					1	.64					9	.38					10	.39				
Other diseases of the circulatory system	22	.52	1	.02									9	.38					9	.35				
Total circulatory system	1,088	25.74	120	2.84	12	.28	45	28.83	1	.64	2	1.28	654	27.46	3	.13	10	.42	699	27.51	4	.16	12	.47
IV. DISEASES OF THE RESPIRATORY SYSTEM.																								
Coryza	1,018	24.09					15	9.61					338	14.19					353	13.91				
Chronic nasal catarrh	61	1.44	3	.07			1	.64					10	.42					11	.43				
Nasal polypus	3	.07																						
Other diseases of the nasal fossæ	4	.09											1	.04					1	.04				
Diseases of the larynx	190	4.50	1	.02			4	2.56					49	2.06					53	2.09				
Diseases of the thyroid body	8	.19	2	.05									3	.13					3	.12				
Acute bronchitis	2,993	70.82			1	.02	93	59.58					788	33.09					881	34.72				
Chronic bronchitis	124	2.93	3	.07			6	3.84					68	2.85					74	2.92				
Broncho pneumonia	16	.38			4	.09							8	.34			1	.04	8	.32			1	.04
Pneumonia	156	3.69			18	.43	1	.64					59	2.48			6	.25	60	2.36			6	.24
Pleurisy	134	3.17	11	.26	3	.07	5	3.20					67	2.81					72	2.84				
Congestion and apoplexy of the lungs	5	.12											3	.13			1	.04	3	.08			1	.04
Asthma	57	1.35	14	.33	1	.02	4	2.56	1	.64			30	1.26	3	.13			34	1.34	4	.16		
Pulmonary emphysema	8	.19	3	.07									3	.13					3	.12				
Other diseases of the respiratory system, phthisis excepted	19	.45	1	.02									6	.25			1	.04	6	.24			1	.04
Total respiratory system	4,796	113.48	38	.90	27	.64	129	82.64	1	.64			1,433	60.17	3	.13	9	.38	1,562	61.55	4	.16	9	.35
V. DISEASES OF THE DIGESTIVE SYSTEM.																								
Diseases of the salivary glands and ducts	1	.02																						
Diseases of the teeth, gums, and alveoli	335	7.93	4	.09			22	14.09					218	9.15					240	9.46				
Diseases of the mouth and tongue	60	1.42					6	3.84					43	1.81					49	1.93				
Tonsillitis	2,519	59.60					39	24.98					331	13.90					370	14.58				
Other diseases of the pharynx	804	19.02					14	8.97					91	3.82					105	4.14				
Diseases of the esophagus			2	.05																				
Ulcer of the stomach	2	.05																						
Dyspepsia	1,419	33.57	1	.02			166	106.34					1,021	42.87					1,187	46.77				
Gastritis	558	13.20	7	.17	1	.02	23	14.73					734	30.82			1	.04	757	29.83			1	.04
Other diseases of the stomach, except cancer	17	.40	2	.05			1	.64					31	1.30			1	.04	32	1.26			1	.04

TABLE V.—*Admissions to sick report, discharges, and deaths in the Army at home and on insular service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	United States (continental)						Cuba and Porto Rico.						Pacific Islands and China.						Total islands.					
Mean strength	42,261						1,561						23,818						25,379					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
V. DISEASES OF THE DIGESTIVE SYSTEM—continued.																								
Diarrhea:																								
Acute	2,423	57.33					119	76.24					5,018	210.69			1	0.04	5,137	202.41			1	0.04
Chronic	82	1.94	6	0.14			2	1.28					109	4.58			2	.08	111	4.37			2	.08
Enteritis	268	6.34	21	.50	6	0.14	13	8.33	1	0.64			459	19.27			5	.21	472	18.60	1	0.04	5	.20
Intestinal parasites	60	1.42					2	1.28					75	3.15					77	3.03				
Inguinal herniæ	160	3.79	43	1.02			6	3.84	2	1.28			60	2.52					66	2.60	2	.08		
Other herniæ	13	.31	6	.14									6	.25					6	.24				
Intestinal obstruction	4	.09			2	.05	1	.64					3	.13			1	.04	4	.16			1	.04
Fistula in ano	36	.85											27	1.13					27	1.06				
Other diseases of the intestines	1,219	28.84	7	.17			39	24.99					1,101	46.23					1,140	44.92				
Acute yellow atrophy of the liver													1	.04			1	.04	1	.04			1	.04
Cirrhosis of the liver	3	.07											2	.08			1	.04	2	.08			1	.04
Biliary calculi	14	.33											5	.21			1	.04	5	.20			1	.04
Acute hepatitis	17	.40					2	1.28					7	.29					9	.35				
Hepatic abscess	12	.28			9	.21							13	.55			3	.13	13	.51			3	.12
Jaundice, catarrhal	93	2.20					3	1.92					75	3.15					78	3.07				
Other diseases of the liver	39	.92	1	.02			1	.64					10	.42					11	.43				
Diseases of the spleen	4	.09	1	.02	1	.02																		
Simple peritonitis	6	.14	1	.02	3	.07							2	.08			1	.04	2	.08			1	.04
Appendicitis and abscesses of iliac fossæ	142	3.36	5	.12	6	.14	3	1.92					63	2.65			2	.08	66	2.60			2	.08
Other diseases of the digestive system, cancer and tuberculosis excepted	2	.05	2	.05									2	.08			1	.04	2	.08			1	.04
Total digestive system	10,312	243.99	109	2.58	28	.66	462	295.97	3	1.92			9,507	399.15			21	.88	9,969	392.81	3	.12	21	.83

VI. DISEASES OF THE GENITO-URINARY SYSTEM AND ITS ADNEXA.																								
Acute nephritis	27	.64	1	.02	2	.05	....	....	....	....	....	....	25	1.05	....	....	2	.08	25	.99	....	....	2	.08
Bright's disease	30	.71	14	.33	11	.26	....	....	....	....	....	....	24	1.01	....	....	3	.13	24	.95	....	....	3	.12
Pyelitis and pyelonephritis	7	.17	2	.05	....	....	....	....	....	....	....	....	2	.08	....	....	....	....	2	.08	....	....	....	....
Other diseases of the kidneys	16	.38	....	....	1	.02	....	....	....	....	....	....	8	.34	....	....	....	....	8	.32	....	....	....	....
Renal calculi	5	.12	....	....	....	....	2	1.28	....	....	....	....	20	.84	....	....	....	....	22	.87	....	....	....	....
Vesical calculi	1	.02	....	....	....	....	....	....	....	....	....	....	1	.04	....	....	....	....	1	.04	....	....	....	....
Cystitis	74	1.75	1	.02	....	....	3	1.92	....	....	....	....	47	1.97	....	....	....	....	50	1.97	....	....	....	....
Other diseases of the bladder	46	1.09	10	.24	....	....	4	2.56	1	.64	....	....	19	.80	....	....	....	....	23	.91	1	.04	....	....
Stricture of the urethra	56	1.33	....	....	....	....	2	1.28	....	....	....	....	27	1.13	....	....	....	....	29	1.14	....	....	....	....
Other diseases of the urethra	19	.45	....	....	....	....	1	.64	1	.64	....	....	10	.42	....	....	....	....	11	.43	1	.04	....	....
Prostatitis	5	.12	....	....	....	....	....	....	....	....	....	....	4	.17	....	....	....	....	4	.16	....	....	....	....
Prostatic hypertrophy	....	....	....	....	....	....	....	....	....	....	....	....	1	.04	....	....	....	....	1	.04	....	....	....	....
Balanitis, nongonorrheal	30	.71	....	....	....	....	1	.64	....	....	....	....	12	.50	....	....	....	....	13	.51	....	....	....	....
Paraphimosis	7	.17	....	....	....	....	....	....	....	....	....	....	5	.21	....	....	....	....	5	.20	....	....	....	....
Phimosis	99	2.34	....	....	....	....	14	8.97	....	....	....	....	98	4.11	....	....	....	....	112	4.41	....	....	....	....
Hydrocele	29	.69	2	.05	....	....	7	4.48	....	....	....	....	24	1.01	....	....	....	....	31	1.22	....	....	....	....
Orchitis, nonvenereal	49	1.16	1	.02	....	....	5	3.20	....	....	....	....	40	1.68	....	....	....	....	45	1.77	....	....	....	....
Other nonvenereal diseases of the genital organs	113	2.67	4	.09	....	....	13	8.33	....	....	....	....	84	3.53	....	....	....	....	97	3.82	....	....	....	....
Total genito-urinary system and its adnexa	613	14.50	35	.83	14	.33	52	33.31	2	1.28	....	....	451	18.94	....	....	5	.21	503	19.82	2	.08	5	.20
VIII. DISEASES OF THE SKIN AND CELLULAR TISSUE.																								
Gangrene	1	.02	1	.02	....	....	....	....	....	....	....	....	1	.04	....	....	1	.04	1	.04	....	....	1	.04
Carbuncle	65	1.54	....	....	....	....	6	3.84	....	....	....	....	24	1.01	....	....	1	.04	30	1.18	....	....	1	.04
Furuncle	1,273	30.12	....	....	....	....	58	37.16	....	....	....	....	1,101	46.23	....	....	....	....	1,159	45.67	....	....	....	....
Acute abscess, phlegmon	605	14.31	1	.02	....	....	60	38.44	....	....	....	....	632	26.54	....	....	....	....	692	27.27	....	....	....	....
Adenitis, suppurative (nonvenereal)	41	.97	1	.02	....	....	4	2.56	....	....	....	....	55	2.31	....	....	....	....	59	2.32	....	....	....	....
Inguinal lymphadenitis, suppurative	2	.05	....	....	....	....	....	....	....	....	....	....	1	.04	....	....	....	....	1	.04	....	....	....	....
Corns and warts	180	4.26	2	.05	....	....	16	10.25	....	....	....	....	72	3.02	....	....	....	....	88	3.47	....	....	....	....
Ingrowing nail	132	3.12	....	....	....	....	13	8.33	....	....	....	....	190	7.98	....	....	....	....	203	8.00	....	....	....	....
Chilblain	4	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ulcer	140	3.31	6	.14	....	....	12	7.69	....	....	....	....	355	14.90	....	....	....	....	367	14.46	....	....	....	....
Dermatitis from poisonous plants	198	4.68	....	....	....	....	32	20.50	....	....	....	....	33	1.39	....	....	....	....	65	2.56	....	....	....	....
Erythemata	50	1.18	....	....	....	....	10	6.41	....	....	....	....	41	1.72	....	....	....	....	51	2.01	....	....	....	....
Herpes	122	2.89	....	....	....	....	6	3.84	....	....	....	....	58	2.44	....	....	....	....	64	2.52	....	....	....	....
Eczema and pemphigus	263	6.22	....	....	....	....	46	29.47	1	.64	....	....	216	9.07	....	....	....	....	262	10.32	1	.04	....	....
Impetigo and acne	20	.47	....	....	....	....	1	.64	....	....	....	....	46	1.93	....	....	....	....	47	1.85	....	....	....	....
Urticaria	55	1.30	....	....	....	....	5	3.20	....	....	....	....	18	.76	....	....	....	....	23	.91	....	....	....	....
Scabies	172	4.07	....	....	....	....	2	1.28	....	....	....	....	10	.42	....	....	....	....	12	.47	....	....	....	....
Dhobie itch	52	1.23	....	....	....	....	4	2.56	....	....	....	....	468	19.65	....	....	....	....	472	18.60	....	....	....	....
Other diseases of the skin and its adnexa	332	7.86	2	.05	....	....	21	13.45	....	....	....	....	280	11.75	....	....	....	....	301	11.86	....	....	....	....
Total skin and cellular tissue	3,707	87.71	13	.31	....	....	296	189.63	1	.64	....	....	3,601	151.19	....	....	2	.08	3,897	153.55	1	.04	2	.08

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Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
IX. DISEASES OF THE ORGANS OF LOCOMOTION.																								
Osteomyelitis	1	0.02	1	0.02									3	0.13					3	0.12				
Caries and necrosis of bone, nontubercular	9	.21	3	.07									9	.38					9	.35				
Periostitis	44	1.04	2	.05			2	1.28					17	.71					19	.75				
Other nontubercular diseases of the bones	34	.80	13	.31			2	1.28	1	0.64			14	.59					16	.63	1	0.04		
Arthritis	73	1.73	7	.17			4	2.56					28	1.18					32	1.26				
Bunion	31	.73	5	.12			3	1.92					8	.34					11	.43				
Synovitis	129	3.05	13	.31			2	1.28					40	1.68					42	1.65				
Other diseases of the joints, except tuberculosis and rheumatism	76	1.80	25	.59			2	1.28					25	1.05	1	0.04			27	1.06	1	.04		
Muscular rheumatism and myalgia	1,514	35.82	9	.21			72	46.13					715	30.02					787	31.01				
Other diseases of the organs of locomotion	83	1.96	14	.33									33	1.39	1	.04			33	1.30	1	.04		
Total, organs of locomotion	1,994	47.18	92	2.18			87	55.73	1	.64			892	37.45	2	.08			979	38.57	3	.12		
XII. OLD AGE.																								
Senile debility	2	.05	1	.02									1	.04					1	.04				
XIV. ILL-DEFINED DISEASES.																								
Malingering	54	1.28					1	.64					14	.59					15	.59				
Under observation, undiagnosed, and unknown	197	4.66			3	.07	16	10.25					63	2.65			1	0.04	79	3.11			1	0.04
Total ill-defined diseases	251	5.94			3	.07	17	10.89					77	3.23			1	.04	94	3.70			1	.04
Total for disease	40,637	961.50	1,382	32.70	174	4.12	1,938	1,241.51	30	19.22	2	1.28	40,521	1,701.28	50	2.10	299	12.55	42,459	1,673.00	80	3.15	301	11.86

XIII. EXTERNAL CAUSES.																								
Suicide:																								
By poison	2	.05			4	.09							1	.04			2	.08	1	.04			2	.08
By hanging or strangulation					1	.02																		
By drowning					1	.02											1	.04					1	.04
By firearms	1	.02			11	.26							2	.08			11	.46	2	.08			11	.43
By cutting instruments					2	.05							1	.04			1	.04	1	.04			1	.04
Fractures, exclusive of gunshot	141	10.43	23	.54	11	.26	10	6.41					162	6.80	2	.08	1	.04	172	6.67	2	.08	1	.04
Dislocations	174	4.12	3	.07	2	.05	4	2.56	1	.64			27	1.13			1	.04	31	1.22	1	.04	1	.04
Sprains	2,649	62.68	8	.19			74	47.40					844	35.41	1	.04			918	36.17	1	.04		
Strain, muscular	656	15.52					23	14.73					202	8.48					225	8.87				
Abrasions and blisters (mechanical)	577	13.65					26	16.66					386	16.21					412	16.23				
Compression of brain	6	.14			1	.02							4	.17					4	.16				
Concussion of brain	19	.45			1	.02							11	.46			1	.04	11	.43			1	.04
Concussion of spine	2	.05			1	.02							3	.13					3	.12				
Wounds:																								
Contused	431	10.20					22	11.09					229	9.62					251	9.89				
Incised	718	16.99	12	.28			66	42.28					438	18.39			2	.08	504	19.86			2	.08
Lacerated	711	16.82	8	.19			39	24.98					280	11.76					319	12.57				
Punctured	310	7.33	1	.02			16	10.25					124	5.21			1	.04	140	5.52			1	.04
Gunshot	99	2.35	45	1.06	12	.28	1	.64					92	3.86			11	.46	93	3.66			11	.43
Crushing	2	.05	1	.02																				
Other traumatisms	3,108	73.54	12	.28	11	.26	122	78.15					970	40.73			3	.13	1,092	43.03			3	.12
Burns and scalds	217	5.13					6	3.84					91	3.82					97	3.82				
Burns by corrosive substances	13	.31					1	.64					5	.21					6	.24				
Sunstroke	56	1.33					11	7.05			1	.64	131	5.50					142	5.59			1	.04
Frostbite	49	1.16	3	.07									1	.04					1	.04				
Electric shock													1	.04			1	.04	1	.04			1	.04
Drowning					13	.31											17	.72					17	.67
Absorption of deleterious gases	3	.07			1	.02							1	.04					1	.04				
Narcotic poisonings, acute	4	.09											2	.08					2	.08				
Corrosive and irritant poisonings, acute	5	.12			3	.07	1	.64					10	.42			1	.04	11	.43			1	.04
Venomous bites, stings, and wounds	44	1.04					8	5.12					110	4.62					118	4.65				
Other acute poisonings	30	.71			1	.02	13	8.33					83	3.48					96	3.78				
Exhaustion from fatigue and exposure	22	.52					1	.64					25	1.05					26	1.02				
Suffocation, exclusive of disease	2	.05											1	.04			1	.04	1	.04			1	.04
Foreign bodies, presence of	20	.47					2	1.28					6	.25					8	.32				
Homicide					1	.02							3	.13			8	.34	3	.12			8	.32
Killed in battle																	13	.55					13	.51
Total external causes	10,371	245.39	116	2.74	77	1.82	446	285.72	1	.64	1	.64	4,246	178.27	3	.13	76	3.19	4,692	184.88	4	.16	77	3.03
Grand total	51,008	1,206.89	1,498	35.44	251	5.94	2,384	1,527.23	31	19.86	3	1.92	44,767	1,879.54	53	2.23	375	15.74	47,151	1,857.87	84	3.31	378	14.98

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903.*

	Infantry.						Cavalry.						Field Artillery.					
Mean strength	25,926						12,562						3,531					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
I.—GENERAL DISEASES.																		
a. Epidemic diseases.																		
Typhoid fever	114	4.40			17	0.66	109	8.68			7	0.56	23	6.51			1	0.28
Malarial fever:																		
Intermittent	5,478	211.29					2,155	171.55					216	61.18				
Remittent or continued	761	29.35			1	.04	610	48.56			2	.16	19	5.38				
Pernicious	16	.62			11	.42	6	.48			4	.32						
Malarial cachexia	143	5.52	2	0.08	1	.04	51	4.06	1	0.08	1	.08	4	1.13				
Smallpox	18	.69			2	.08	5	.40					2	.57				
Measles	130	5.01					69	5.49					41	11.61				
Scarlet fever	3	.12					2	.16					1	.28				
Diphtheria	12	.46					5	.40					2	.57				
Influenza	767	29.58					279	22.21					138	39.08				
Asiatic cholera	86	3.32			58	2.24	10	.80			7	.56	1	.28				
Cholera nostras	22	.85					9	.72					1	.28				
Acute dysentery	1,112	42.89			20	.77	310	24.68			6	.48	41	11.61				
Chronic dysentery	476	18.36	47	1.81	11	.42	150	11.94	15	1.19	3	.24	17	4.81	4	1.13	1	.28
Yellow fever	5	.19											1	.28				
Erysipelas	26	1.00					6	.48			1	.08	5	1.42				
Beri-beri	15	.58	3	.12	3	.12	3	.24	1	.08								
Dengue	1,206	46.52					608	48.40					112	31.72				
Mumps	206	7.95					53	4.22					46	13.03				
Rubella	15	.58					2	.16					9	2.55				
Varicella	13	.50					3	.24					1	.28				
Vaccinia	493	19.02					246	19.58					92	26.06				
Total for epidemic diseases	11,117	428.80	52	2.01	124	4.78	4,691	373.44	17	1.35	31	2.47	772	218.64	4	1.13	2	.57

b. Other general diseases.																		
Purulent infection and septicemia	4	.15			4	.15												
Anthrax							1	.08										
Actinomycosis, trichinosis, etc	13	.50																
Tuberculosis of the larynx													1	.28			1	.28
Tuberculosis of the lungs	87	3.36	71	2.74	16	.62	37	2.95	25	1.99	6	.48	14	3.96	8	2.27	3	.85
Abdominal tuberculosis							1	.08			1	.08						
Pott's disease	3	.12	1	.04			2	.16							1	.28		
Tuberculous abscess							1	.08										
White swelling							2	.16	1	.08								
Tuberculosis of other organs	6	.23	2	.08	2	.08	3	.24	2	.16								
General tuberculosis	3	.12			4	.15												
Syphilis:																		
Primary	91	3.51					50	3.98					13	3.68				
Secondary	548	21.14	88	3.39			344	27.39	40	3.18			70	19.83	7	1.98		
Tertiary	45	1.74	6	.23	1	.04	19	1.51	5	.40			2	.57	1	.28	1	.28
Chancroid	1,023	39.46					517	41.16					115	32.57				
Gonorrhea	2,340	90.26	2	.08			1,426	113.52	7	.56			294	83.26	5	1.42		
Gonorrheal epididymitis and orchitis	384	14.81	1	.04			187	14.89	2	.16			43	12.18	1	.28		
Gonorrheal ophthalmia	8	.31	6	.23			7	.56	2	.16			2	.57	2	.57		
Gonorrheal rheumatism	62	2.39	20	.77			36	2.87	11	.88			6	1.70	2	.57		
Cancer and other malignant tumors:																		
Of the buccal cavity	1	.04					1	.08					1	.28	1	.28		
Of the stomach, liver	3	.12			2	.08												
Of the peritoneum intestines, rectum	2	.08			1	.04												
Cancer and other malignant tumors of other organs and unspecified	4	.15	2	.08			1	.08										
Other tumors	34	1.31	1	.04			13	1.03					4	1.13				
Acute articular rheumatism	252	9.72					129	10.27	1	.08			36	10.20				
Chronic rheumatism and gout	150	5.79	19	.73			80	6.37	15	1.19			18	5.10	3	.85		
Scurvy	1	.04																
Diabetes	5	.19	3	.12							1	.08						
Exophthalmic goiter													1	.28				
Leukemia	1	.04			1	.04												
Anemia	23	.89					13	1.03	1	.08			5	1.42	1	.28		
Other general diseases	357	13.77	2	.08			253	20.14	1	.08			22	6.23	1	.28		
Acute alcoholism	643	24.80			3	.12	173	13.77			1	.08	11	11.61			1	.28
Delirium tremens	29	1.12	1	.04			5	.40					1	.28				
Chronic alcoholism	35	1.35	3	.12	2	.08	8	.64	2	.16			3	.85				
Chronic lead poisoning	1	.04					1	.08										
Narcotic poisonings, chronic	3	.12					3	.24	1	.08			1	.28				
Other chronic poisonings	1	.04			1	.04												
Total for other general diseases	6,162	237.68	228	8.79	37	1.43	3,313	263.74	116	9.23	9	.72	693	196.27	33	9.34	6	1.70

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	Infantry.						Cavalry.						Field Artillery.					
Mean strength	25,926						12,562						3,531					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																		
Meningitis	1	0.04			1	0.04	5	0.40			1	0.08						
Meningitis, epidemic, cerebro-spinal	1	.04			1	.04												
Progressive locomotor ataxia	1	.04	1	0.04			1	.08	1	0.08								
Other diseases of the spinal cord	4	.15	2	.08					1	.08					1	0.28		
Cerebral congestion and hemorrhage	6	.23	1	.04	2	.08												
Softening of the brain	1	.04			1	.04												
Paralysis without specified cause	16	.62	3	.12	1	.04	7	.56	3	.24			1	0.28				
General paralysis			1	.04					1	.08					1	.28		
Insanity	28	1.08	27	1.04	1	.04	10	.80	9	.72			4	1.13	3	.85		
Epilepsy	37	1.43	13	.50			17	1.35	11	.88			2	.57				
Convulsions (eclampsia)	1	.04																
Tetanus							1	.08			1	.08						
Chorea							3	.24	1	.08								
Neuralgia	283	10.92					155	12.34	1	.08			29	8.21				
Neuritis	42	1.62	10	.39	1	.04	15	1.19	2	.16			1	.28	1	.28		
Neurasthenia	44	1.70	4	.15			20	1.59	2	.16			6	1.70	1	.28		
Nostalgia	5	.19					1	.08										
Other diseases of the nervous system	148	5.71	17	.66	1	.04	96	7.64	5	.40			17	4.81	5	1.42		
Total for nervous system	618	23.84	79	3.05	9	.35	331	26.35	37	2.95	2	.16	60	16.99	12	3.40		
Of the eye and its adnexa.																		
Lids, diseases of	40	1.54					14	1.11					9	2.55				
Lachrymal apparatus, diseases of	2	.08	2	.08			3	.24					3	.85				
Conjunctivitis:																		
Acute	217	8.37					126	10.03					35	9.91				
Chronic	15	.58					9	.72	2	.16			1	.28				
Keratitis	12	.46	2	.08			2	.16					3	.85	1	.28		
Choroid, diseases of	1	.04	1	.04														
Iritis	26	1.00	2	.08			12	.96					2	.57				
Retinitis	16	.62	3	.12			7	.56					4	1.13	1	.28		
Snow-blindness	2	.08					1	.08										
Asthenopia	4	.15					2	.16	1	.08								

Cataract	1	.04	1	.04			1	.08								
Glaucoma	1	.04	1	.04												
Amaurosis	3	.12	1	.04			4	.32	3	.24			3	.85	3	.85		
Night blindness	5	.19	1	.04												
Other diseases of the eye and its adnexa	78	3.01	13	.50			23	1.83	4	.32			10	2.83	1	.28		
Total for the eye and its adnexa	423	16.32	27	1.01			204	16.24	10	.80			70	19.82	6	1.70		
Of the ear and its adnexa.																
Diseases of the external ear	27	1.04					11	.88					3	.85				
Diseases of the tympanum	1	.04					3	.24	1	.08			2	.57				
Diseases of the middle and internal ear	210	8.10	18	.69			99	7.88	7	.56			32	9.06	4	1.13		
Deafness	6	.23	1	.04									1	.28	1	.28		
Other diseases of the ear and its adnexa	7	.27					5	.40					4	1.13				
Total for the ear and its adnexa	251	9.68	19	.73			118	9.39	8	.64			42	11.89	5	1.42		
III. DISEASES OF THE CIRCULATORY SYSTEM.																
Pericarditis	4	.15			1	.04	1	.08										
Acute endocarditis	3	.12			1	.04												
Organic diseases of the heart	51	1.97	32	1.23	3	.12	30	2.39	18	1.43	6	.48	5	1.42	1	.28		
Angina pectoris	15	.58	1	.04			5	.40										
Cardiac irritability	53	2.04	10	.39			35	2.79	5	.40			5	1.42	1	.28		
Aneurism	1	.04			1	.04												
Embolism and thrombosis	5	.19	1	.04														
Varicocele	136	5.25	2	.08			26	2.07					26	7.36	1	.28		
Varicose veins	14	.54					13	1.03					2	.57				
Hemorrhoids	290	11.19					165	13.14					33	9.35				
Phlebitis	14	.54	1	.04			3	.24										
Adenitis, nonsuppurative (nonvenereal)	129	4.98					69	5.49					14	3.96				
Lymphangitis	12	.46					7	.56					1	.28				
Other diseases of the lymphatic system	3	.12					2	.16					1	.28				
Hemorrhages	9	.35					11	.88					4	1.13				
Other diseases of the circulatory system	18	.69					6	.48										
Total for the circulatory system	757	29.20	47	1.81	6	.23	373	29.70	23	1.83	6	.48	91	25.77	3	.85		
IV. DISEASES OF THE RESPIRATORY SYSTEM.																
Coryza	582	22.45					152	12.16					61	17.27				
Chronic nasal catarrh	24	.93	2	.08			9	.72					3	.85				
Nasal polypus							1	.08										
Other diseases of the nasal fossæ	2	.08											1	.28				
Diseases of the larynx	82	3.16					60	4.78					9	2.55				
Diseases of the thyroid body	5	.19					3	.24	1	.08								
Acute bronchitis	1,367	52.73			1	.04	758	60.35					300	84.96				
Chronic bronchitis	75	2.89	1	.04			30	2.39	1	.08			9	2.55	1	.28		
Broncho-pneumonia	11	.42			1	.04	6	.48			2	.16						
Pneumonia	73	2.82			9	.35	41	3.26			5	.40	23	6.51			4	1.13
Pleurisy	75	2.89	4	.15	1	.04	34	2.71	2	.16			10	2.83				
Congestion and apoplexy of the lungs	5	.19					2	.16										
Asthma	29	1.12	6	.23	1	.04	12	.96	3	.24			10	2.83	1	.28		

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	Infantry.						Cavalry.						Field Artillery.					
Mean strength	25,926						12,562						3,531					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
IV. DISEASES OF THE RESPIRATORY SYSTEM—continued.																		
Pulmonary emphysema	7	0.27	3	0.12			2	0.16										
Other diseases of the respiratory system, phthisis excepted	11	.42					3	.24					1	0.28				
Total for the respiratory system	2,348	90.57	16	.62	13	0.50	1,113	88.61	7	0.56	7	0.56	427	120.93	2	0.57	4	1.13
V. DISEASES OF THE DIGESTIVE SYSTEM.																		
Diseases of the salivary glands and ducts	1	.04																
Diseases of the teeth, gums, and alveoli	252	9.72	2	.08			102	8.12					31	8.78				
Diseases of the mouth and tongue	47	1.81					27	2.15					3	.85				
Tonsillitis	962	37.10					684	54.45					250	70.80				
Other diseases of the pharynx	239	9.22					187	14.89					74	20.96				
Diseases of she esophagus			1	.04														
Ulcer of the stomach	1	.04					1	.08										
Dyspepsia	956	36.87					525	41.79					152	43.05	1	.28		
Gastritis	582	22.45	1	.04	1	.04	271	21.57	3	.24	1	.08	63	17.84	1	.28		
Other diseases of the stomach, except cancer	21	.81	1	.04			7	.56					5	1.42				
Diarrhea:																		
Acute	3,936	151.82			1	.04	1,476	117.50					370	104.79				
Chronic	121	4.67	4	.15	1	.04	29	2.31			1	.08	7	1.98				
Enteritis	371	14.31	11	.42	9	.35	183	14.57	4	.32	2	.16	36	10.20	1	.28		
Intestinal parasites	77	2.97					30	2.39					2	.57				
Inguinal hernia	92	3.55	18	.69			37	2.95	10	.80			10	2.83	2	.57		
Other hernia	8	.31	3	.12			1	.08	1	.08			1	.28				
Intestinal obstruction	2	.08			1	.04							2	.57				
Fistula in ano	30	1.16					12	.96					6	1.70				
Other diseases of the intestines	1,026	39.58	3	.12			476	37.89	1	.08			101	28.60				
Acute yellow atrophy of the liver	1	.04			1	.04												
Cirrhosis of the liver	3	.12			1	.04												
Biliary calculi	7	.27			1	.04	1	.08										
Acute hepatitis	11	.42					4	.32					1	.28				

Hepatic abscess	9	.35			5	.19	5	.40			3	.24	1	.28				
Jaundice, catarrhal	88	3.39					30	2.39					8	2.27				
Other diseases of the liver	21	.93	1	.04			12	.96										
Diseases of the spleen							1	.08										
Simple peritonitis	5	.19	1	.04	2	.08	1	.08			1	.08						
Appendicitis and abscesses of iliac fossæ	71	2.74	2	.08	3	.12	38	3.03	2	.16	1	.08	14	3.96			1	.28
Other diseases of the digestive system, cancer and tuberculosis excepted	2	.08					1	.08	1	.08	1	.08			1	.28		
Total for the digestive system	8,945	345.02	48	1.85	26	1.00	4,141	329.65	22	1.75	10	.80	1,137	322.01	6	1.70	1	.28
VI. DISEASES OF THE GENITO-URINARY SYSTEM AND ITS ADNEXA.																		
Acute nephritis	25	.96	1	.04	2	.08	5	.40			1	.08	1	.28				
Bright's disease	21	.81	2	.08	6	.23	6	.48	1	.08	2	.16					1	.28
Pyelitis and pyelonephritis	4	.15					1	.08										
Other diseases of the kidneys	9	.35			1	.04	4	.32					1	.28				
Renal calculi	11	.42					3	.24										
Vesical calculi							1	.08										
Cystitis	56	2.16					22	1.75					5	1.42	1	.28		
Other diseases of the bladder	23	.89	1	.04			11	.88	2	.16			2	.57				
Stricture of the urethra	30	1.16					19	1.51					7	1.98				
Other diseases of the urethra	13	.50					7	.56					1	.28				
Prostatitis	3	.12					3	.24										
Prostatic hypertrophy	1	.04																
Balanitis, nongonorrheal	13	.50					11	.88					1	.28				
Paraphimosis	5	.19					5	.40										
Phimosis	104	4.01					29	2.31					6	1.70				
Hydrocele	29	1.12					9	.72					1	.28				
Orchitis, nonvenereal	37	1.43					13	1.03					1	.28	1	.28		
Other nonvenereal diseases of the genital organs	101	3.90	4	.15			24	1.91					12	3.40				
Total for the genito-urinary system and its adnexa	485	18.71	8	.31	9	.35	173	13.77	3	.24	3	.24	38	10.76	2	.57	1	.28
VIII. DISEASES OF THE SKIN AND CELLULAR TISSUE.																		
Gangrene	1	.04			1	.04												
Carbuncle	36	1.39			1	.04	19	1.51					5	1.42				
Furuncle	880	33.95					775	61.70					231	65.42				
Acute abscess, phlegmon	488	18.82					349	27.78					70	19.82				
Adenitis, suppurative (nonvenereal)	38	1.47					20	1.59					3	.85				
Inguinal lymphadenitis, suppurative	1	.04											1	.28				
Corns and warts	100	3.86					46	3.66					11	3.12				
Ingrowing nail	164	6.33	1	.04			53	4.22					9	2.55				
Chilblain	1	.04					2	.16										
Ulcer	290	11.19	4	.15			75	5.97					6	1.70				
Dermatitis from poisonous plants	67	2.58					46	3.66					12	3.40				
Erythemata	42	1.62					12	.96					9	2.55				
Herpes	68	2.62					44	3.50					7	1.98				

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	Infantry.						Cavalry.						Field Artillery.					
Mean strength	25,926						12,562						3,531					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
VIII. DISEASES OF THE SKIN AND CELLULAR TISSUE—continued.																		
Eczema and pemphigus	233	8.99	1	0.04			62	4.94					8	2.27				
Impetigo and acne	32	1.20					16	1.27					1	.28				
Urticaria	33	1.27					13	1.03					3	.85				
Scabies	49	1.89					64	5.10					15	4.25				
Dhobie itch	264	10.18					102	8.12					12	3.40				
Other diseases of the skin and its adnexa	250	9.64					136	10.83					37	10.48				
Total for the skin and cellular tissue	3,037	117.14	6	.23	2	0.08	1,834	146.00					440	124.61				
IX. DISEASES OF THE ORGANS OF LOCOMOTION.																		
Osteomyelitis	1	.04					3	.24	1	0.08								
Caries and necrosis of bone, nontubercular	5	.19	2	.08			5	.40										
Periostitis	22	.85					13	1.03	1	.08			3	.85	1	0.28		
Other nontubercular diseases of the bones	25	.96	9	.35			15	1.19	3	.24			1	.28				
Arthritis	48	1.85	1	.04			16	1.27	2	.16			8	2.27				
Bunion	10	.39					14	1.11	1	.08			1	.28				
Synovitis	60	2.31	4	.15			39	3.10	4	.32			21	5.95				
Other diseases of the joints, except tuberculosis and rheumatism	44	1.70	7	.27			19	1.51	5	.40			5	1.42	2	.57		
Muscular rheumatism and myalgia	917	35.37	1	.04			443	35.27	1	.08			125	35.40				
Other diseases of the organs of locomotion	42	1.62	1	.04			23	1.83	2	.16			6	1.70				
Total for the organs of locomotion	1,174	45.29	25	.96			590	46.97	20	1.59			170	48.15	3	.85		
XII. OLD AGE.																		
Senile debility	3	.12	1	.04														
XIV. ILL-DEFINED DISEASES.																		
Sudden death					1	.04												

Malingering	22	.85					10	.80					5	1.42				
Under observation, undiagnosed, and unknown	95	3.66					55	4.38			1	0.08	26	7.36				
Total ill-defined diseases	117	4.51			1	.04	65	5.18			1	.08	31	8.78				
Total for disease	35,437	1,366.86	556	21.44	227	8.76	16,946	1,348.99	263	20.94	69	5.49	3,971	1,124.61	76	21.52	14	3.96
XIII. EXTERNAL CAUSES.																	
Suicide:																	
By poison	1	.04			2	.08												
By hanging or strangulation					1	.04												
By drowning					2	.08												
By firearms	1	.04			11	.42	1	.08			5	.40					1	.28
By cutting instruments					2	.08												
Fractures, exclusive of gunshot	202	7.79	2	.08	1	.04	176	14.01	11	.88	5	.40	50	14.16	3	.85	3	.85
Dislocations	68	2.62	1	.04			81	6.45					21	5.95	1	.28		
Sprains	1,217	46.94	1	.04			909	72.37	4	.32			254	71.94				
Strain, muscular	220	8.49					280	22.29					71	20.11				
Abrasions and blisters (mechanical)	337	13.00					271	21.58					66	18.69				
Compression of brain	2	.08					2	.16										
Concussion of brain	12	.46			1	.04	12	.96			1	.08						
Concussion of spine							4	.32			1	.08						
Wounds:																	
Contused	240	9.26					153	12.18					63	17.84				
Incised	511	19.71	10	.39	1	.04	237	18.87	1	.08	1	.08	61	17.27				
Lacerated	367	14.16	4	.15			273	21.74	1	.08			92	26.06				
Punctured	158	6.09	1	.04	1	.04	87	6.93					42	11.89				
Gunshot	58	2.24	20	.77	5	.19	73	5.81	14	1.11	7	.56	10	2.83	3	.85	3	.85
Crushing							2	.16	1	.08								
Other traumatisms	1,102	42.50	4	.15	3	.12	1,364	108.58	2	.16	5	.40	525	148.67	2	.57	2	.57
Burns and scalds	119	4.59					64	5.10					17	4.81				
Burns by corrosive substances	6	.23					3	.24					3	.85				
Sunstroke	79	3.05					63	5.02					2	.57				
Frostbite	21	.81	2	.08			19	1.51	1	.08			3	.85				
Electric shock	1	.04									1	.08						
Drowning					9	.35					3	.24					2	.57
Absorption of deleterious gases	1	.04					1	.08										
Narcotic poisonings, acute	3	.12					1	.08										
Corrosive and irritant poisonings, acute	4	.15			1	.04												
Venomous bites, stings, and wounds	74	2.85					40	3.18					5	1.42				
Other acute poisonings	79	3.05			1	.04	13	1.04					2	.57				
Exhaustion from fatigue and exposure	22	.85					7	.56										
Suffocation, exclusive of disease							1	.08										
Foreign bodies, presence of	6	.23					4	.32					3	.85				
Homicide	2	.08			4	.15	1	.08			3	.24						
Killed in battle					5	.19					3	.24						
Total external causes	1,913	189.48	45	1.74	50	1.93	4,142	329.73	35	2.79	35	2.79	1,290	365.34	9	2.55	11	3.12
Grand total	40,350	1,556.35	601	23.18	277	10.68	21,088	1,678.72	298	23.72	104	8.28	5,261	1,489.94	85	24.07	25	7.08

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	Coast Artillery.						Engineers.						Ordnance.					
Mean strength	13,244						1,330						743					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
I. GENERAL DISEASES.																		
a. Epidemic diseases.																		
Typhoid fever	50	3.78	1	0.08	4	0.30	16	12.03					2	2.69				
Malarial fever:																		
Intermittent	646	48.77					221	166.16					21	28.26				
Remittent or continued	114	8.61					61	45.86					3	4.04				
Pernicious	1	.08					1	.75			1	0.75						
Malarial cachexia	16	1.21	1	.08			13	9.77					1	1.35	1	1.35		
Smallpox	1	.08					1	.75										
Measles	118	8.91					9	6.77					2	2.69				
Scarlet fever	3	.23																
Diphtheria	4	.30																
Influenza	810	61.16					84	63.16					39	52.49				
Asiatic cholera	1	.08					1	.75										
Cholera nostras	3	.23											2	2.69				
Acute dysentery	54	4.08			1	.08	42	31.58					2	2.69				
Chronic dysentery	48	3.62	8	.60			33	24.81	5	3.76	1	.75	4	5.38				
Leprosy	1	.08																
Erysipelas	4	.30					3	2.26					1	1.35				
Beri-beri	2	.15																
Dengue	200	15.10					29	21.80					4	5.38				
Mumps	100	7.55					8	6.02					1	1.35				
Rubella	3	.23					1	.75										
Varicella	10	.76																
Vaccinia	380	28.69					29	21.80					1	1.35				
Other epidemic diseases	1	.08																
Total for epidemic diseases	2,570	194.05	10	.76	5	.38	552	415.04	5	3.76	2	1.50	83	111.71	1	1.35		
b. Other general diseases.																		
Purulent infection and septicmeia	2	.15			1	.08							1	1.35			1	1.35
Tuberculosis of the larynx	1	.08																
Tuberculosis of the lungs	49	3.70	32	2.42	4	.30	3	2.26	2	1.50	1	.75	4	5.38	3	4.04		
Abdominal tuberculosis							1	.75			1	.75						

Tuberculosis of other organs	5	.38											2	2.69		
Syphilis:																
Primary	44	3.32					9	6.77								
Secondary	213	16.08	34	2.57			20	15.04	4	3.01			2	2.69		
Tertiary	17	1.28	7	.53					1	.75						
Hereditary	1	.08	1	.08												
Chancroid	341	25.75					41	30.83					3	4.04		
Gonorrhea	870	65.69	6	.45			95	71.43					5	6.73		
Gonorrheal epididymitis and orchitis	148	11.17	5	.38			21	15.79					1	1.35		
Gonorrheal ophthalmia	3	.23	3	.23			2	1.50	1	.75						
Gonorrheal rheumatism	40	3.02	14	1.06			8	6.02	1	.75			1	1.35		
Cancer and other malignant tumors:																
Of the buccal cavity													1	1.35			1	1.35
Of the stomach, liver	1	.08			1	.08										
Of other organs and unspecified	1	.08														
Other tumors	21	1.59	1	.08			2	1.50								
Acute articular rheumatism	136	10.27					14	10.53					4	5.38		
Chronic rheumatism and gout	57	4.30	14	1.06			7	5.26	1	.75			3	4.04	1	1.35		
Diabetes							1	.75	1	.75								
Addison's disease					1	.08												
Anemia	11	.83	1	.08			2	1.50					1	1.35				
Other general diseases	169	12.76	1	.08			7	5.26					2	2.69				
Acute alcoholism	551	41.60			1	.08	26	19.55					22	29.61			1	1.35
Delirium tremens	13	.98					1	.75			1	.75						
Chronic alcoholism	18	1.36	2	.15	1	.08	1	.75					1	1.35				
Chronic lead poisoning	2	.15	1	.08														
Narcotic poisonings, chronic	3	.23	1	.08														
Other chronic poisonings																		
Total for other general diseases	2,717	205.15	123	9.29	9	.68	261	196.24	11	8.27	3	2.26	53	71.34	4	5.38	3	4.04
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																
Meningitis	1	.08														
Meningitis, epidemic, cerebro-spinal	1	.08														
Progressive locomotor ataxia	1	.08											1	1.35		
Other diseases of the spinal cord	1	.08														
Cerebral congestion and hemorrhage	3	.23			2	.15	2	1.50								
Paralysis without specified cause	3	.23	2	.15			1	.75	1	.75						
General paralysis	2	.15	1	.08									1	1.35			1	1.35
Insanity	17	1.28	17	1.28									1	1.35	1	1.35		
Epilepsy	20	1.51	9	.68														
Tetanus	1	.08			1	.08												
Chorea	1	.08	1	.08														
Neuralgia	175	13.21	3	.23			15	11.28					14	18.84				
Neuritis	26	1.96	2	.15									1	1.35				
Neurasthenia	18	1.36	3	.23			2	1.50										
Nostalgia	2	.15																
Other diseases of the nervous system	83	6.27	6	.45			11	8.27	1	.75			1	1.35				
Total for nervous system	355	26.80	44	3.32	3	.23	31	23.31	2	1.50			19	25.57	1	1.35	1	1.35

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	Coast Artillery.						Engineers.						Ordnance.					
Mean strength	13,244						1,330						743					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE—continued.																		
Of the eye and its adnexa.																		
Lids, diseases of	19	1.43					2	1.50										
Lachrymal apparatus, diseases of	3	.23																
Conjunctivitis:																		
Acute	106	8.00					7	5.26					5	6.73				
Chronic	11	.83	2	0.15														
Keratitis	7	.53					1	.75										
Choroid, diseases of	1	.08	1	.08					1	0.75			1	1.35				
Iritis	8	.60					2	1.50										
Retinitis	8	.60	3	.23					1	.75								
Snow-blindness			1	.08														
Asthenopia	2	.15																
Cataract	2	.15	1	.08														
Amaurosis	3	.23	4	.30														
Other diseases of the eye and its adnexa	32	2.42	3	.23			4	3.01	1	.75			1	1.35				
Total for the eye and its adnexa	202	15.25	15	1.13			16	12.03	3	2.26			7	9.42				
Of the ear and its adnexa.																		
Diseases of the external ear	17	1.28											1	1.35				
Diseases of the tympanum	1	.08					1	.75										
Diseases of the middle and internal ear	80	6.04	6	.45			10	7.52	1	.75			5	6.73				
Deafness	2	.15					1	.75	1	.75								
Other diseases of the ear and its adnexa	11	.83																
Total for the ear and its adnexa	111	8.38	6	.45			12	9.02	2	1.50			6	8.08				

III. DISEASES OF THE CIRCULATORY SYSTEM.																		
Acute endocarditis	1	0.08																
Organic diseases of the heart	21	1.59	17	1.28	2	0.15	1	0.75	1	0.75			1	1.35				
Angina pectoris	6	.45	2	.15			2	1.50	1	.75								
Cardiac irritability	28	2.11	1	.08			5	3.76	2	1.50								
Aneurism	1	.08			1	.08												
Other diseases of the arteries	2	.15																
Embolism and thrombosis	2	.15																
Varicocele	79	5.96	1	.08			6	4.51										
Varicose veins	18	1.36					2	1.50					1	1.35				
Hemorrhoids	116	8.76					11	8.27					2	2.69				
Phlebitis	4	.30	1	.08														
Adenitis, nonsuppurative (nonvenereal)	49	3.70					3	2.26										
Lymphangitis	9	.68																
Other diseases of the lymphatic system	4	.30																
Hemorrhages	16	1.21																
Other diseases of the circulatory system	4	.30	1	.08			1	.75										
Total for the circulatory system	360	27.18	23	1.74	3	.23	31	23.31	4	3.01			4	5.38				
IV. DISEASES OF THE RESPIRATORY SYSTEM.																		
Coryza	405	30.58					21	15.79					38	51.15				
Chronic nasal catarrh	28	2.11					1	.75										
Nasal polypus	2	.15																
Other diseases of the nasal fossæ							1	.75										
Diseases of the larynx	58	4.38	1	.08			13	9.77					3	4.04				
Diseases of the thyroid body	2	.15	1	.08			1	.75										
Acute bronchitis	1,008	76.11					66	49.62					32	43.07				
Chronic bronchitis	57	4.30					2	1.50										
Broncho-pneumonia	2	.15					1	.75			1	0.75	1	1.35				
Pneumonia	28	2.11			2	.15	9	6.77			2	1.50						
Pleurisy	38	2.87	3	.23			5	3.76	1	.75			2	2.69				
Congestion and apoplexy of the lungs	1	.08																
Asthma	24	1.81	4	.30			2	1.50										
Pulmonary emphysema	2	.15																
Other diseases of the respiratory system, phthisis excepted	9	.68	1	.08														
Total for the respiratory system	1,664	125.64	10	.76	2	.15	122	91.73	1	.75	3	2.26	76	102.29				
V. DISEASES OF THE DIGESTIVE SYSTEM.																		
Diseases of the teeth, gums, and alveoli	141	10.65	1	.08			8	6.02					3	4.04				
Diseases of the mouth and tongue	23	1.71					1	.75										
Tonsillitis	749	56.55					43	32.33					14	18.84				
Other diseases of the pharynx	313	23.63					47	35.34					7	9.42				
Diseases of the esophagus									1	.75								
Dyspepsia	691	52.17					45	33.84					30	40.38				
Gastritis	194	14.65	1	.08			24	18.04					8	10.77				
Other diseases of the stomach, except cancer	4	.30																

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	Coast Artillery.						Engineers.						Ordnance.					
Mean strength	13,244						1,330						743					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
V. DISEASES OF THE DIGESTIVE SYSTEM—continued.																		
Diarrhea:																		
Acute	859	64.86					173	130.08					46	61.91				
Chronic	10	.76	1	0.08			10	7.52					1	1.35	1	1.35		
Enteritis	52	3.93					12	9.02										
Intestinal parasites	17	1.28					7	5.26										
Inguinal herniæ	42	3.17	8	.60			6	4.51					3	4.04				
Other herniæ	5	.38	2	.15			1	.75										
Intestinal obstruction	2	.15					1	.75			1	0.75						
Fistula in ano	8	.60					1	.75					1	1.35				
Other diseases of the intestines	428	32.31	2	.15			30	22.56					7	9.42				
Cirrhosis of the liver	2	.15																
Biliary calculi	5	.38					1	.75					1	1.35				
Acute hepatitis	4	.30											1	1.35				
Hepatic abscess	2	.15											3	4.04				
Jaundice, catarrhal	27	2.04					5	3.76										
Other diseases of the liver	9	.68																
Diseases of the spleen	1	.08											1	1.35	1	1.35		
Simple peritonitis	1	.08					1	.75			1	.75						
Appendicitis and abscesses of iliac fossæ	53	4.00			2	0.15	3	2.26										
Other diseases of the digestive system, cancer and tuberculosis excepted	1	.08																
Total for the digestive system	3,643	275.06	15	1.13	2	.15	419	315.04	1	0.75	2	1.50	126	169.58	2	2.69		
VI. DISEASES OF THE GENITO-URINARY SYSTEM AND ITS ADNEXA.																		
Acute nephritis	7	.53			1	.08												
Bright's disease	8	.60	6	.45	1	.08	2	1.50	2	1.50	1	.75	1	1.35			1	1.35
Pyelitis and pyelonephritis			1	.08			1	.75										
Other diseases of the kidneys	3	.23																
Cystitis	29	2.19					1	.75										

Other diseases of the bladder	28	2.11	7	.53	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Stricture of the urethra	22	1.66	......	......	......	......	1	.75	......	......	......	......	2	2.69	......	......	......	......
Other diseases of the urethra	8	.60	1	.08	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Prostatitis	3	.23	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Balanitis, nongonorrheal	16	1.21	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Paraphimosis	1	.08	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Phimosis	58	4.38	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Hydrocele	9	.68	......	......	......	......	2	1.50	......	......	......	......	......	......	......	......	......	......
Orchitis, nonvenereal	24	1.81	......	......	......	......	2	1.50	......	......	......	......	......	......	......	......	......	......
Other nonvenereal diseases of the genital organs	55	4.15	......	......	......	......	2	1.50	......	......	......	......	1	1 35	......	......	......	......
Total for the genito-urinary system and its adnexa	271	20.46	15	1.13	2	.15	11	8.27	2	1.50	1	.75	4	5.38	......	......	1	1.35
VIII. DISEASES OF THE SKIN AND CELLULAR TISSUE.																		
Carbuncle	16	1.21	......	......	......	......	2	1.50	......	......	......	......	2	2.69	......	......	......	......
Furuncle	344	25.97	......	......	......	......	43	32.33	......	......	......	......	7	9.42	......	......	......	......
Acute abscess, phlegmon	202	15.25	......	......	......	......	13	9.77	1	.75	......	......	6	8.08	......	......	......	......
Adenitis, suppurative (nonvenereal)	19	1.43	1	.08	......	......	3	2.26	......	......	......	......	......	......	......	......	......	......
Corns and warts	94	7.10	......	......	......	......	3	2.26	......	......	......	......	......	......	......	......	......	......
Ingrowing nail	67	5.06	......	......	......	......	2	1.50	......	......	......	......	2	2.69	......	......	......	......
Chilblain	......	......	......	......	......	......	1	.75	......	......	......	......	......	......	......	......	......	......
Ulcer	44	3.32	2	.15	......	......	19	14.29	......	......	......	......	1	1.35	......	......	......	......
Dermatitis from poisonous plants	104	7.85	......	......	......	......	4	3.01	......	......	......	......	3	4.04	......	......	......	......
Erythemata	28	2.11	......	......	......	......	6	4.51	......	......	......	......	1	1.35	......	......	......	......
Herpes	48	3.62	......	......	......	......	3	2.26	......	......	......	......	......	......	......	......	......	......
Eczema and pemphigus	189	14.27	......	......	......	......	5	3.76	......	......	......	......	1	1.35	......	......	......	......
Impetigo and acne	10	.76	......	......	......	......	2	1.50	......	......	......	......	......	......	......	......	......	......
Urticaria	18	1.36	......	......	......	......	3	2.26	......	......	......	......	1	1.35	......	......	......	......
Scabies	39	2.94	......	......	......	......	3	2.26	......	......	......	......	1	1.35	......	......	......	......
Dhobie itch	26	1.96	......	......	......	......	5	3.76	......	......	......	......	......	......	......	......	......	......
Other diseases of the skin and its adnexa	123	9.29	......	......	......	......	7	5.26	......	......	......	......	1	1.35	......	......	......	......
Total for the skin and cellular tissue	1,371	103.52	3	.23	......	......	124	93.23	1	.75	......	......	26	34.99	......	......	......	......
IX. DISEASES OF THE ORGANS OF LOCOMOTION.																		
Caries and necrosis of bone, nontubercular	3	.23	1	.08	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Periostitis	19	1.43	......	......	......	......	1	.75	......	......	......	......	......	......	......	......	......	......
Other nontubercular diseases of the bones	5	.38	1	.08	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Arthritis	23	1.74	4	.30	......	......	1	.75	......	......	......	......	......	......	......	......	......	......
Bunion	13	.98	2	.15	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Synovitis	39	2.94	5	.38	......	......	1	.75	......	......	......	......	......	......	......	......	......	......
Other diseases of the joints, except tuberculosis and rheumatism	20	1.51	6	.45	......	......	2	1.50	......	......	......	......	......	......	......	......	......	......
Muscular rheumatism and myalgia	559	42.21	6	.45	......	......	30	22.56	......	......	......	......	42	56.53	......	......	......	......
Other diseases of the organs of locomotion	30	2.27	5	.38	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Total for the organs of locomotion	711	53.68	30	2.27	......	......	35	26.32	......	......	......	......	42	56.53	......	......	......	......

TABLE VI.—*Admission to sick report, discharges, and deaths in the Army by Arms of Service, with ratios per 1,000 of mean strength for the year 1903*—Continued.

	Coast Artillery.						Engineers.						Ordnance.					
Mean strength	13,244						1,330						743					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
XII. OLD AGE.																		
Senile debility	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
XIV. ILL-DEFINED DISEASES.																		
Malingering	22	1.66	......	......	......	......	1	0.75	......	......	......	......	......	......	......	......	......	......
Under observation, undiagnosed, and unknown	54	4.08	......	......	1	0.08	9	6.77	......	......	......	......	......	......	......	......	......	......
Total ill-defined diseases	76	5.74	......	......	1	.08	10	7.52	......	......	......	......	......	......	......	......	......	......
Total for disease	14,051	1,060.93	294	22.20	27	2.04	1,624	1,221.05	32	24.06	11	8.27	446	600.27	8	10.77	5	6.73
XIII. EXTERNAL CAUSES.																		
Fractures, exclusive of gunshot	113	8.53	5	.38	1	.08	12	9.02	......	......	......	......	2	2.69	......	......	......	......
Dislocations	62	4.68	1	.08	1	.08	2	1.50	......	......	1	.75	......	......	......	......	......	......
Sprains	941	71.04	4	.30	......	......	62	46.61	......	......	......	......	13	17.50	......	......	......	......
Strain, muscular	273	20.61	......	......	......	......	5	3.76	......	......	......	......	3	4.04	......	......	......	......
Abrasions and blisters (mechanical)	201	15.18	......	......	......	......	16	12.03	......	......	......	......	3	4.04	......	......	......	......
Compression of brain	4	.30	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Concussion of brain	4	.30	......	......	......	......	1	.75	......	......	......	......	......	......	......	......	......	......
Wounds:																		
Contused	181	13.67	......	......	......	......	5	3.76	......	......	......	......	5	6.73	......	......	......	......
Incised	308	23.25	1	.08	......	......	13	9.77	......	......	......	......	3	4.04	......	......	......	......
Lacerated	220	16.61	2	.15	......	......	28	21.05	......	......	......	......	6	8.08	......	......	......	......
Punctured	119	8.98	......	......	......	......	16	12.03	......	......	......	......	2	2.69	......	......	......	......
Gunshot	22	1.66	5	.38	4	.30	2	1.50	1	.75	......	......	1	1.35	1	1.35	......	......
Other traumatisms	961	72.56	3	.23	4	.30	61	45.86	......	......	......	......	26	34.99	......	......	......	......
Burns and scalds	80	6.04	......	......	......	......	9	6.77	......	......	......	......	3	4.04	......	......	......	......
Burns by corrosive substances	3	.23	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Sunstroke	34	2.57	......	......	1	.08	6	4.51	......	......	......	......	2	2.69	......	......	......	......
Frostbite	4	.30	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......

Drowning	......	......	......	......	7	.53	......	......	......	......	3	2.26	......	......	......	......	2	2.69
Absorption of deleterious gases	1	.08	......	......	1	.08	......	......	......	......	......	......	......	......	......	......	......	......
Corrosive and irritant poisonings, acute	3	.23	......	......	1	.08	8	6.02	......	......	1	.75	......	......	......	......	......	......
Venomous bites, stings, and wounds	14	1.06	......	......	......	......	4	3.01	......	......	......	......	2	2.69	......	......	......	......
Other acute poisonings	20	1.51	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Exhaustion from fatigue and exposure	15	1.13	......	......	......	......	1	.75	......	......	......	......	......	......	......	......	......	......
Suffocation, exclusive of disease	2	.15	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Foreign bodies, presence of	13	.98	......	......	......	......	......	......	......	......	......	......	1	1.35	......	......	......	......
Homicide	......	......	......	......	......	......	......	......	......	......	1	.75	......	......	......	......	......	......
Total external causes	3,598	271.67	21	1.59	20	1.51	251	188.72	1	.75	6	4.51	72	96.91	1	1.35	2	2.69
Grand total	17,649	1,332.60	315	23.78	47	3.55	1,875	1,409.77	33	24.81	17	12.78	518	697.17	9	12.11	7	9.42

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army, by arms of service, with ratios per 1,000 of mean strength, for the year 1903*—Continued.

	Signal Corps.						Medical Department.						Philippine Scouts.						Others.					
Mean strength	810						3,369						4,888						1,240					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
I. GENERAL DISEASES.																								
a. Epidemic diseases.																								
Typhoid fever	2	2.47					19	5.64					5	1.02			1	0.20	8	6.45				
Malarial fever:																								
Intermittent	77	95.06					187	55.51					2,156	441.08					73	58.87				
Remittent or continued	17	20.99					85	25.23					382	78.15			1	.20	14	11.29				
Pernicious	1	1.23			1	1.23	2	.59					14	2.86			11	2.25						
Malarial cachexia	5	6.17					21	6.23					13	2.66					4	3.23				
Smallpox	2	2.47			1	1.23							7	1.43					3	2.42				
Measles	2	2.47					9	2.67					3	.61					76	61.29				
Scarlet fever							2	.59																
Diphtheria							2	.59											1	.81				
Influenza	10	12.35					103	30.57					1	.20					99	79.84				
Asiatic cholera	1	1.23					5	1.48			3	0.89	44	9.00			28	5.73						
Cholera nostras							4	1.19					6	1.23										
Acute dysentery	22	27.16			1	1.23	49	14.54					73	14.93			1	.20	5	4.03				
Chronic dysentery	27	33.33			2	2.47	59	17.51	3	0.89	1	.30	15	3.07			2	.41	12	9.68	3	2.42		
Erysipelas							2	.59											1	.81				
Beri-beri							2	.59					614	125.60	5	1.02	22	4.50						
Dengue	31	38.27					113	33.54					149	30.48					11	8.87				
Mumps	2	2.47					9	2.67					22	4.50					45	36.29				
Rubella							3	.89					1	.20					1	.81				
Varicella							4	1.19																
Vaccinia	11	13.58					9	2.67					1	.20					233	187.90				
Total epidemic diseases	210	259.25			5	6.17	689	204.50	3	.89	4	1.19	3,506	717.26	5	1.02	66	13.50	586	472.58	3	2.42		
b. Other general diseases.																								
Purulent infection and septicemia							1	.30					3	.61			2	.41						
Actinomycosis, trichinosis, etc													1	.20			1	.20						

Tuberculosis of the larynx							1	.30	1	.30									1	.81	1	.81		
Tuberculosis of the lungs	4	4.94			1	1.23	20	5.94	18	5.34			35	7.16	24	4.91	4	.82	10	8.06	6	4.84	1	0.81
Tuberculosis of other organs							1	.30	1	.30			3	.61	2	.41								
Syphilis:																								
Primary							3	.89					3	.61					1	.81				
Secondary	7	8.64					36	10.69	8	2.37			12	2.45	1	.20			25	20.16	13	10.48	1	.81
Tertiary	4	4.94			1	1.23	2	.59	1	.30			2	.41	1	.20			2	1.61	1	.81		
Chancroid	20	24.69					41	12.17					39	7.98					19	15.32				
Gonorrhea	69	85.18					111	32.95					161	32.94					52	41.93				
Gonorrheal epididymitis and orchitis	12	14.81					29	8.61					40	8.18					11	8.87				
Gonorrheal ophthalmia							3	.89					3	.61					1	.81				
Gonorrheal rheumatism	1	1.23					9	2.67	1	.30			7	1.43	2	.41			5	4.03	1	.81		
Cancer and other malignant tumors:																								
Of the stomach, liver																			1	.81			1	.81
Of the peritoneum, intestines, rectum													1	.20			1	.20						
Of other organs and unspecified													1	.20	1	.20			1	.81	1	.81	1	.81
Other tumors	4	4.94					2	.59					3	.61										
Acute articular rheumatism	6	7.41					19	5.64					17	3.48					14	11.29				
Chronic rheumatism and gout	5	6.17	1	1.23			17	5.05	4	1.19			4	.82					6	4.84	3	2.42		
Scurvy																			1	.81				
Diabetes							3	.89																
Anemia	1	1.23					9	2.67	1	.30	1	.30	1	.20			1	.20	2	1.61				
Other general diseases	3	3.70					25	7.42					271	55.44					13	10.48				
Acute alcoholism	20	24.69					45	13.36					2	.41					18	14.52			1	.81
Delirium tremens	2	2.47					4	1.19											1	.81				
Chronic alcoholism							5	1.48	4	1.19			1	.20					1	.81				
Chronic lead poisoning	1	1.23					1	.30	1	.30														
Narcotic poisonings, chronic							13	3.86	7	2.08	1	.30							1	.81	1	.81		
Total other general diseases	159	196.30	1	1.23	2	2.47	400	118.73	47	13.95	2	.59	610	124.79	31	6.34	9	1.84	186	150.00	27	21.77	5	4.03
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.																								
Meningitis							1	.30	1	.30			1	.20			1	.20						
Progressive locomotor ataxia																			2	1.61	1	.81		
Other diseases of the spinal cord							1	.30											1	.81				
Paralysis without specified cause	1	1.23					1	.30																
Insanity							9	2.67	16	4.75			1	.20					2	1.61	2	1.61		
Epilepsy	1	1.23	1	1.23					1	.30			3	.61	1	.20			3	2.42	3	2.42		
Tetanus													1	.20			1	.20						
Neuralgia	6	7.41					22	6.53					22	4.50					3	2.42				
Neuritis	1	1.23					7	2.08					3	.61					1	.81	1	.81		
Neurasthenia	4	4.94					15	4.45											4	3.23				
Other diseases of the nervous system	5	6.17					21	6.23					10	2.05					4	3.23				
Total nervous system	18	22.22	1	1.23			77	22.86	18	5.34			41	8.39	1	.20	2	.41	20	16.13	7	5.65		

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army, by arms of service, with ratios per 1,000 of mean strength, for the year 1903*—Continued.

	Signal Corps.						Medical Department.						Philippine Scouts.						Others.					
Mean strength	810						3,369						4,888						1,240					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE—continued.																								
Of the eye and its adnexa.																								
Lids, diseases of	2	2.47					4	1.19					2	0.41					2	1.61				
Lachrymal apparatus, diseases of							1	.30					2	.41					2	1.61				
Conjunctivitis:																								
Acute	5	6.17					13	3.86					91	18.62					9	7.26				
Chronic	1	1.23											3	.61										
Keratitis	1	1.23					4	1.19	1	0.30			11	2.25					3	2.42				
Iritis							3	.89					2	.41	1	0.20			1	.81				
Retinitis	1	1.23					3	.89																
Snow-blindness	1	1.23																						
Asthenopia	2	2.47					2	.59					1	.20										
Cataract													1	.20										
Glaucoma													1	.20										
Amaurosis							1	.30	1	.30														
Other diseases of the eye and its adnexa							20	5.94	3	.89			6	1.23	2	.41			9	7.26				
Total for the eye and its adnexa	13	16.05					51	15.14	5	1.48			120	24.55	3	.61			26	20.97				
Of the ear and its adnexa.																								
Diseases of the external ear							3	.89					2	.41										
Diseases of the middle and internal ear	3	3.70					18	5.34	2	.59			13	2.66					16	12.90	1	0.81		
Deafness							1	.30	1	.30									1	.81	1	.81		
Total for the ear and its adnexa	3	3.70					22	6.53	3	.89			15	3.07					17	13.71	2	1.61		

III. DISEASES OF THE CIRCULATORY SYSTEM.																								
Organic diseases of the heart	3	3.70			1	1.23	10	2.97	4	1.19	3	0.89	7	1.43	2	.41	1	0.82	16	12.90	11	8.87		
Angina pectoris													1	.20	1	.20			2	1.61	1	.81	1	0.81
Cardiac irritability	4	4.94					3	.89	1	.30			2	.41					2	1.61				
Embolism and thrombosis													1	.20										
Varicocele	1	1.23					16	4.75					1	.20					16	12.90	1	.81		
Varicose veins	2	2.47					3	.89	1	.30			2	.41										
Hemorrhoids	4	4.94					24	7.12	1	.30			4	.82					9	7.26				
Phlebitis													2	.41					2	1.61	1	.81		
Adenitis, nonsuppurative (nonvenereal)	3	3.70					6	1.78					9	1.84					5	4.03				
Lymphangitis							3	.89					1	.20					1	.81				
Other diseases of the lymphatic system																			1	.81				
Hemorrhages							3	.89																
Other diseases of the circulatory system													2	.41										
Total circulatory system	17	20.99			1	1.23	68	20.18	7	2.08	3	.89	32	6.55	3	.61	1	.82	54	43.55	14	11.29	1	.81
IV. DISEASES OF THE RESPIRATORY SYSTEM.																								
Coryza	1	1.23					36	10.69					57	11.66					18	14.52				
Chronic nasal catarrh	1	1.23					2	.59	1	.30									4	3.23				
Other diseases of the nasal fossæ																			1	.81				
Diseases of the larynx							3	.89					7	1.43					8	6.45				
Acute bronchitis	15	18.52					78	23.15					170	34.78					80	64.52				
Chronic bronchitis							13	3.86					9	1.84					3	2.42				
Broncho-pneumonia							2	.59					1	.20			1	.20						
Pneumonia	2	2.47					9	2.67					20	4.09			1	.20	11	8.87			1	.81
Pleurisy	4	4.94					17	5.05	1	.30			14	2.86					7	5.65			2	1.61
Congestion and apoplexy of the lungs																	1	.20						
Asthma							2	.59					10	2.05	3	.61			2	1.61	1	.81		
Other diseases of the respiratory system, phthisis excepted													1	.20			1	.20						
Total respiratory system	23	28.40					162	48.09	2	.59			289	59.12	3	.61	4	.82	134	108.06	1	.81	3	2.42
V. DISEASES OF THE DIGESTIVE SYSTEM.																								
Diseases of the teeth, gums, and alveoli	6	7.41					12	3.56					15	3.07					5	4.03	1	.81		
Diseases of the mouth and tongue	2	2.47					2	.59					2	.41					2	1.61				
Tonsillitis	16	19.75					103	30.57					18	3.68					50	40.33				
Other diseases of the pharynx	3	3.70					16	4.75					2	.41					21	16.94				
Dyspepsia	17	20.99					70	20.78					90	18.41					30	24.19				
Gastritis	14	17.28					50	14.84	1	.30			73	14.93					36	29.03				
Other diseases of the stomach, except cancer	1	1.23	1	1.23			1	.30					8	1.64			1	.20	2	1.61				
Diarrhea:																								
Acute	31	38.27					129	38.29					499	102.09					41	33.07				
Chronic	4	4.94					8	2.37											3	2.42				

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army, by arms of service, with ratios per 1,000 of mean strength, for the year 1903*—Continued.

	Signal Corps.						Medical Department.						Philippine Scouts.						Others.					
Mean strength	810						3,369						4,888						1,240					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
V. DISEASES OF THE DIGESTIVE SYSTEM—continued.																								
Enteritis	14	17.28	2	2.47			39	11.58	1	0.30			17	3.48					16	12.90	3	2.42		
Intestinal parasites	1	1.23					3	.89																
Inguinal herniæ	4	4.94	1	1.23			12	3.56	1	.30			6	1.23					14	11.29	5	4.03		
Other herniæ							1	.30					1	.20					1	.81				
Intestinal obstruction							1	.30			1	0.30												
Fistula in ano							1	.30					2	.41					2	1.61				
Other diseases of the intestines	26	32.10					58	17.22	1	.30			174	35.60					33	26.61				
Biliary calculi							3	.89											1	.81				
Acute hepatitis							3	.89					1	.20					1	.81				
Hepatic abscess	1	1.23			1	1.23	2	.59			1	.30	2	.41			2	0.41						
Jaundice, catarrhal	1	1.23					6	1.78					3	.61					3	2.42				
Other diseases of the liver							4	1.19											1	.81				
Diseases of the spleen							1	.30			1	.30												
Appendicitis and abscesses of iliac fossæ	1	1.23					22	6.53	1	.30	1	.30	2	.41					4	3.23				
Total digestive system	142	175.31	4	4.94	1	1.23	547	162.35	5	1.48	4	1.19	915	187.19			3	.61	266	214.52	9	7.26		
VI. DISEASES OF THE GENITO-URINARY SYSTEM AND ITS ADNEXA.																								
Acute nephritis							5	1.48					7	1.43					2	1.61				
Bright's disease	2	2.47					9	2.67	2	.59	1	.30	1	.20					4	3.23	1	.81	1	0.81
Pyelitis and pyelonephritis							3	.89	1	.30														
Other diseases of the kidneys							5	1.48					2	.41										
Renal calculi	1	1.23					8	2.37					3	.61					1	.81				
Vesical calculi																			1	.81				
Cystitis	1	1.23					4	1.19					2	.41					4	3.23				
Other diseases of the bladder	1	1.23					1	.30											3	2.42	1	.81		
Stricture of the urethra							2	.59											2	1.61				
Other diseases of the urethra													1	.20										

Balanitis, nongonorrheal													1	.20					1	.81				
Paraphimosis																			1	.81				
Phimosis	1	1.23					2	.59					11	2.25										
Hydrocele	2	2.47					2	.59					4	.82					2	1.61	2	1.61		
Orchitis, nonvenereal							5	1.48					11	2.25					1	.81				
Other nonvenereal diseases of the genital organs							7	2.08					6	1.23					2	1.61				
Total genito-urinary system and its adnexa	8	9.88					53	15.73	3	.89	1	.30	49	10.02					24	19.35	4	3.23	1	.81
VIII. DISEASES OF THE SKIN AND CELLULAR TISSUE.																								
Gangrene							1	.30	1	.30														
Carbuncle	1	1.23					3	.89					9	1.84					2	1.61				
Furuncle	12	14.81					34	10.09					87	17.80					19	15.32				
Acute abscess, phlegmon	9	11.11					29	8.61					115	23.53					16	12.90				
Adenitis, suppurative (nonvenereal)	3	3.70					2	.59					11	2.25					1	.81				
Inguinal lymphadenitis, suppurative													1	.20										
Corns and warts							3	.89					8	1.64					3	2.42	1	.81		
Ingrowing nail	3	3.70					4	1.19					26	5.32					5	4.03				
Ulcer	2	2.47					12	3.56					54	11.05					4	3.23				
Dermatitis from poisonous plants	3	3.70					9	2.67					9	1.84					6	4.84				
Erythemata							3	.89																
Herpes	1	1.23					1	.30					8	1.64					6	4.84				
Eczema and pemphigus							5	1.48					22	4.50										
Impetigo and acne													6	1.23										
Urticaria							3	.89					1	.20					3	2.42				
Scabies							3	.89					3	.61					7	5.65				
Dhobie itch							2	.59					113	23.12										
Other diseases of the skin and its adnexa	5	6.17					18	5.34	2	.59			44	9.00					12	9.68				
Total skin and cellular tissue	39	48.15					132	39.18	3	.89			517	105.77					84	67.74	1	.81		
IX. DISEASES OF THE ORGANS OF LOCOMOTION.																								
Caries and necrosis of bone, nontubercular	1	1.23					2	.59					2	.41										
Periostitis	1	1.23					3	.89					1	.20										
Other nontubercular diseases of the bones							3	.89											1	.81	1	.81		
Arthritis	1	1.23					4	1.19					2	.41					2	1.61				
Bunion							1	.30					1	.20					2	1.61	2	1.61		
Synovitis							2	.59					5	1.02					4	3.23				
Other diseases of the joints, except tuberculosis and rheumatism							4	1.19	2	.59			2	.41	1	.20			7	5.65	3	2.42		
Muscular rheumatism and myalgia	8	9.88					60	17.81					87	17.80					30	24.19	1	.81		
Other diseases of the organs of locomotion	1	1.23					1	.30					4	.82	1	.20			9	7.26	6	4.84		
Total organs of locomotion	12	14.81					80	23.75	2	.59			104	21.28	2	.41			55	44.35	13	10.48		

TABLE VI.—*Admissions to sick report, discharges, and deaths in the Army, by arms of service, with ratios per 1,000 of mean strength, for the year 1903*—Continued.

	Signal Corps.						Medical Department.						Philippine Scouts.						Others.					
Mean strength	810						3,369						4,888						1,240					
	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
XIV. ILL-DEFINED DISEASES.																								
Malingering							4	1.19					2	0.41					3	2.42				
Under observation, undiagnosed, and unknown	1	1.23					4	1.19			1	0.30	10	2.05					22	17.74				
Total ill-defined diseases	1	1.23					8	2.37			1	.30	12	2.45					25	20.16				
Total for disease	645	796.30	6	7.41	9	11.11	2,289	679.43	98	29.09	15	4.45	6,210	1,270.45	48	9.82	88	18.00	1,477	1,191.13	81	65.33	10	8.06
XIII. EXTERNAL CAUSES.																								
Suicide:																								
By poison							2	.59			4	1.19												
By firearms					3	3.70											2	.41						
By cutting instruments													1	.20			1	.20						
Fractures, exclusive of gunshot	2	2.47	1	1.23			11	3.27					22	4.50	1	.20			23	18.55	2	1.61	2	1.61
Dislocations	1	1.23					2	.59					2	.41			1	.20	4	3.23	1	.81		
Sprains	8	9.88					38	11.28					64	13.09					23	18.55				
Strain, muscular							9	2.67					18	3.68					2	1.61				
Abrasions and blisters (mechanical)	1	1.23					5	1.48					60	12.27					29	23.39				
Compression of brain													1	.20					1	.81			1	.81
Concussion of brain																			1	.81				
Concussion of spine													1	.20										
Wounds:																								
Contused	3	3.70					5	1.48					21	4.30					6	4.84				
Incised	3	3.70					19	5.64					67	13.71										
Lacerated	7	8.64					12	3.56					16	3.27					9	7.26	1	.81		
Punctured	1	1.23					7	2.08					13	2.66					5	4.03				
Gunshot							4	1.19					21	4.30			4	.82	2	1.61	1	.81		
Other traumatisms	7	8.64					49	11.54					71	14.52					34	27.42	1	.81		

Burns and scalds							6	1.78					9	1.84					7	5.65				
Burns by corrosive substances							3	.89											1	.81				
Sunstroke							3	.89					9	1.84										
Frostbite	1	1.23					1	.30											1	.81				
Drowning											2	.59					2	.41						
Absorption of deleterious gases																			1	.81				
Narcotic poisonings, acute							2	.59																
Corrosive and irritant poisonings, acute							1	.30			1	.30												
Venomous bites, stings, and wounds	2	2.47					2	.59					19	3.89										
Other acute poisonings	1	1.23					2	.59					7	1.43					2	1.61				
Exhaustion from fatigue and exposure							2	.59					1	.20										
Suffocation, exclusive of disease											1	.30												
Foreign bodies, presence of													1	.20										
Homicide																	1	.20						
Killed in battle																	5	1.02						
Total external causes	37	45.68	1	1.23	3	3.70	185	54.92			8	2.37	424	86.74	1	.20	16	3.27	151	121.77	6	4.84	3	2.42
Grand total	682	841.97	7	8.64	12	14.81	2,474	734.34	98	29.09	23	6.83	6,634	1,357.20	49	10.02	104	21.28	1,628	1,312.90	87	70.16	13	10.48

INTERNATIONAL TABLE I.—*Movement of sick, by army corps (departments), absolute numbers.*

Departments.	Mean strength.	Admitted sick.			Sick disposed of. [a]				
		To quarters.	To hospital.	Total admissions.	Returned to duty (recovered).	Died. [b]	Otherwise disposed of.	Total.	Total days sick. [a]
Department of the East	16,100	7,513	12,350	19,863	19,099	60	565	19,724	232,311
Department of the Lakes	2,896	946	2.253	3,199	3,050	12	129	3,191	40,137
Department of Dakota	2,830	951	2,515	3,466	3,321	25	106	3,452	38,851
Department of the Missouri	6.543	2.910	5.472	8,382	8,046	37	264	8,347	91,057
Department of Texas	1,803	835	1.486	2.321	2,261	7	68	2,336	30.536
Department of the Colorado	2.667	1.166	2.441	3,607	3,442	18	105	3.565	41,447
Department of California	5,885	3.639	3.028	6,667	5,936	12	255	6,203	63,527
Department of the Columbia	3,129	1,079	1.925	3,004	2,841	14	138	2,993	35,790
General hospitals	411	....	499	499	1.482	66	983	2,531	174,320
United States (continental)	42.264	19.039	31,969	51,008	49.478	251	2,613	52,342	747,976
Philippines Division	23,818	13.415	31.352	44,767	42,932	375	955	44,262	575,160
Cuba and Porto Rico	1.561	683	1.701	2,384	2,322	3	59	2,384	29.340
Total Army	67.643	33.137	65,022	98,159	94.732	629	3,627	98,988	1,352,476

[a] Includes cases remaining from last year.

[b] Includes suicides and accidents.

INTERNATIONAL TABLE II.—*Movement of sick, by army corps (departments), proportionate numbers.*

Departments.	In 1,000 of mean strength.			In 1,000 sick disposed of. [a]			Days lost. [a]	
	Total admissions.	Admissions to hospitals.	Deaths. [b]	Returned to duty (recovered).	Died. [b]	Otherwise disposed of.	Per soldier.	Per admission.
Department of the East	1,233.73	767.08	3.73	968.32	3.04	28.64	14.43	11.78
Department of the Lakes	1,104.63	777.97	4.14	955.81	3.76	40.43	13.86	12.58
Department of Dakota	1,224.74	888.69	8.83	962.05	7.24	30.71	13.73	11.25
Department of the Missouri	1,281.07	836.31	5.65	963.94	4.43	31.63	13.92	10.91
Department of Texas	1,287.30	824.18	3.88	967.90	3.00	29.10	16.94	13.07
Department of the Colorado	1,325.46	915.26	6.75	965.50	5.05	29.45	15.54	11.63
Department of California	1,132.88	514.53	2.04	956.96	1.93	41.11	10.79	10.24
Department of the Columbia	960.05	615.21	4.47	949.21	4.68	46.11	11.44	11.96
General hospitals	....	....	....	585.54	26.08	388.38	....	68.87
United States (continental)	1,206.89	756.41	5.94	945.28	4.80	49.92	17.70	14.29
Philippines Division	1,879.54	1,316.31	15.74	969.95	8.47	21.58	24.15	12.99
Cuba and Porto Rico	1,527.23	1,089.68	1.92	973.99	1.26	24.75	18.80	12.31
Total Army	1,451.13	961.25	9.30	957.00	6.35	36.64	19.99	13.66

[a] Includes cases remaining from last year.

[b] Includes suicides and accidents.

INTERNATIONAL TABLE III.—*Movement of sick, by arms of service.*

Arms of service.	Absolute numbers.						Proportionate numbers.				
		Sick admissions.		Sick disposed of. [a]			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
	Mean strength.	Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.	Fit for duty (recovered).	Deaths.
Infantry	25,926	40,350	26,224	40,959	39,175	277	1,556.35	1,011.49	10.68	956.44	6.76
Cavalry	12,562	21,088	14,536	21,145	20,227	104	1,678.72	1,157.14	8.28	956.59	4.92
Coast Artillery	13,244	17,649	11,408	17,619	17,021	47	1,332.60	861.37	3.55	966.06	2.67
Field Artillery	3,531	5,261	3,364	5,285	5,076	25	1,489.94	952.70	7.08	960.45	4.73
Engineers	1,330	1,875	1,098	1,923	1,834	17	1,409.77	825.56	12.78	953.72	8.84
Ordnance	743	518	155	512	490	7	697.17	208.61	9.42	957.03	13.67
Signal Corps	810	682	553	700	650	12	841.97	682.72	14.81	928.57	17.14
Medical Department	3,369	2,474	1,974	2,562	2,345	23	734.34	585.93	6.83	915.30	8.98
Philippine Scouts	4,888	6,634	4,628	6,639	6,426	104	1,357.20	946.81	21.28	967.92	15.67
Others	1,240	1,628	1,082	1,644	1,488	13	1,312.90	872.58	10.48	905.11	7.91
Total	67,643	98,159	65,022	98,988	94,732	629	1,451.13	961.25	9.30	957.00	6.35

[a] Includes cases remaining from last year.

INTERNATIONAL TABLE IV.—*Movement of sick, by months.*

Months.	Absolute numbers.						Proportionate numbers.				
	Mean strength.	Sick admissions.		Sick disposed of.[a]			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
		Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.	Fit for duty (recd).	Deaths.
January	69,790	9,796	6,177	9,401	9,051	70	140.36	88.51	1.00	962.77	7.45
February	69,812	8,983	5,433	8,964	8,571	58	128.67	77.82	.83	956.16	6.47
March	69,290	9,006	5,716	9,331	8,959	55	129.98	82.49	.79	960.14	5.89
April	68,892	8,520	5,542	8,671	8,286	57	123.67	80.44	.83	955.60	6.57
May	68,254	8,230	5,577	8,472	8,068	59	120.58	81.71	.86	952.31	6.96
June	67,729	7,834	5,282	7,825	7,490	39	115.67	77.99	.58	957.19	4.98
July	66,896	8,314	5,630	8,111	7,810	55	124.28	84.16	.82	962.89	6.78
August	66,122	8,375	5,627	8,621	8,215	51	126.66	85.10	.77	952.91	5.92
September	65,740	7,730	5,321	7,725	7,401	48	117.58	80.94	.73	958.06	6.21
October	66,000	7,468	5,060	7,700	7,387	43	113.15	76.67	.65	959.35	5.58
November	66,313	6,935	4,823	7,061	6,677	54	104.58	72.73	.81	945.62	7.65
December	66,874	6,968	4,834	7,106	6,817	40	104.20	72.29	.60	959.33	5.63
Total	67,643	98,159	65,022	98,988	94,732	629	1,451.13	961.25	9.30	957.00	6.35

[a] Includes cases remaining from last year.

INTERNATIONAL TABLE V.—*Movement of sick in the larger garrisons.*

Garrisons.	Mean strength.	Total admissions.		Admissions to hospital.		Deaths.	
		Absolute number.	Per 1,000 mean strength.	Absolute number.	Per 1,000 mean strength.	Absolute number.	Per 1,000 mean strength.
Presidio of San Francisco, Cal.	2,576	3,077	1,194.49	1,308	507.76	5	1.94
Fort Leavenworth, Kans	1,760	2,351	1,335.80	1,394	792.04	11	6.25
Fort Riley, Kans	1,252	1,966	1,570.29	1,400	1,118.22	3	2.40
Ord Barracks, Monterey, Cal	1,008	715	709.32	332	329.38	....	....
Fort Monroe, Va	953	1,547	1,623.29	828	868.84	3	3.15
Fort Sheridan, Ill	798	771	966.16	671	840.85	4	5.01
Camp Geo. H. Thomas, Ga	761	1,357	1,783.18	857	1,126.15	4	5.26
Vancouver Barracks, Wash	737	789	1,070.55	480	651.29	2	2.71
Columbus Barracks, Ohio	695	772	1,110.79	664	955.39	....	....
Fort Sam Houston, Tex	664	656	987.95	564	849.40	2	3.01
Fort Snelling, Minn	615	904	1,469.92	602	978.86	6	9.76
Jefferson Barracks, Mo	609	875	1,436.78	654	1,073.89	8	13.14
Fort Assinniboine, Mont	596	806	1,352.35	619	1,038.59	3	5.03
Fort Ethan Allen, Vt	586	757	1,291.81	407	694.54	1	1.71
Fort Totten, N. Y	581	525	903.61	402	691.91	3	5.16
Fort Myer, Va	573	935	1,631.76	665	1,160.56	2	3.49
Fort Thomas, Ky	558	429	768.81	237	424.70	5	8.96
Fort Hamilton, N. Y	555	574	1,034.23	256	461.25	1	1.80
Fort Niobrara, Nebr	534	430	805.24	397	743.45	5	9.36
West Point, N. Y	529	391	739.13	216	408.32	2	3.78
Fort Robinson, Nebr	521	740	1,420.35	517	992.32	2	3.84
Fort Douglas, Utah	500	456	912.00	298	596.00	5	10.00

INTERNATIONAL TABLE VI.—*Movement of sick according to most important diseases.*

	Diseases of the international nosological table.	Absolute numbers.									Proportionate numbers.					
		Remaining under treatment at close of year 1902.	Admitted in 1903.	Total remaining and admitted.	Disposed of in 1903.				Remaining under treatment at close of 1903.	Total days sick in 1903.	Per 1,000 of mean strength.		Per 1,000 disposed of.			Average days of treatment.
					Fit for duty (recovered).	Died.	Otherwise.	Total.			Admissions.	Deaths.	Fit for duty (recovered).	Died.	Otherwise.	
1	Alkoholismus acutus, including delirium tremens.	18	1,597	1,615	1,568	9	27	1,604	11	5,964	23.61	0.13	977.55	5.61	16.83	3.73
2	Bronchitis acuta	49	3,874	3,923	3,810	1	33	3,844	79	21,377	57.27	.01	991.16	.26	8.58	5.52
3	Cholera asiatica	7	149	156	57	96	3	156	....	1,321	2.20	1.42	365.39	615.38	19.23	8.87
4	Cholera nostras	1	47	48	48	....	....	48	....	209	.69	....	1,000.00	....	....	4.45
5	Diphtheria et croup	1	26	27	25	....	2	27	....	644	.38	....	925.93	....	74.07	24.77
6	Dysenteria	397	2,551	2,948	2,462	50	268	2,780	168	113,754	37.71	.74	885.61	17.99	96.40	44.58
7	Erysipelas	3	48	51	44	1	2	47	4	860	.71	.01	936.17	21.28	42.55	17.92
8	Febris intermittens (malaria)	189	11,230	11,419	11,195	....	151	11,346	73	71,155	166.02	....	986.69	....	13.31	6.34
9	Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
10	Gonorrhea	326	5,423	5,749	5,152	....	278	5,430	319	118,446	80.17	....	948.80	....	51.20	21.84
11	Hernia	46	245	291	194	....	65	259	32	14,681	3.62	....	749.04	....	250.96	59.92
12	Influenza	18	2,330	2,348	2,292	....	35	2,327	21	12,794	34.45	....	984.96	....	15.04	5.49
13	Insolatio (Hitzschlag, coup de chaleur)	....	198	198	188	1	6	195	3	991	2.93	.01	964.10	5.13	30.77	5.00
14	Meningitis cerebro-spinalis epidemica	....	2	2	1	1	....	2	....	103	.03	.01	500.00	500.00	....	51.50
15	Morbilli	9	459	468	426	....	18	444	24	7,611	6.79	....	959.46	....	40.54	16.58
16	Parotitis epidemica	64	492	556	526	....	17	543	13	7,223	7.27	....	968.69	....	31.31	14.68
17	Pleuritis	21	206	227	184	3	24	211	16	7,447	3.05	.04	872.04	14.22	113.74	36.15
18	Pneumonia crouposa sive lobaris	20	216	236	179	24	17	220	16	6,781	3.19	.35	813.64	109.09	77.27	31.39
19	Rheumatismus articulorum	35	627	662	601	....	26	627	35	12,613	9.27	....	958.53	....	41.47	20.12
20	Scarlatina	....	11	11	10	....	1	11	....	307	.16	....	909.09	....	90.91	27.91
21	Scorbutus	....	2	2	2	....	....	2	....	198	.03	....	1,000.00	....	....	99.00
22	Syphilis	149	1,585	1,734	1,281	4	258	1,543	191	66,558	23.43	.06	830.20	2.59	167.21	41.99
23	Trachoma	1	40	41	31	....	7	38	3	2,150	.59	....	815.79	....	184.20	53.75
24	Tuberculosis pulmonum	122	263	385	34	36	203	273	112	42,192	3.89	.53	124.54	131.87	743.59	160.43
25	Tuberculosis ceterorum organorum	9	37	46	15	9	16	40	6	3,871	.55	.13	375.00	225.00	400.00	104.62
26	Typhus abdominalis	107	348	455	369	30	16	415	40	25,243	5.14	.44	889.16	72.29	38.55	72.54
27	Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
28	Ulcus molle (inclusive adenitis venerea)	184	2,159	2,343	2,073	....	93	2,166	177	52,697	31.92	....	957.06	....	42.94	24.41
29	Variola	1	39	40	31	3	3	37	3	1,336	.58	.04	837.84	81.08	81.08	34.26
30	Morbi auris	44	597	641	531	....	72	603	38	14,156	8.83	....	880.60	....	119.40	23.71

31	Morbi cordis	42	322	364	190	22	123	335	29	12,281	4.76	.33	567.17	65.67	367.16	38.14
32	Morbi cutis	184	7,604	7,788	7,497	2	132	7,631	157	74,130	112.41	.03	982.44	.26	17.30	9.75
33	Morbi mentis	30	72	102	1	1	87	89	13	5,022	1.06	.01	11.24	11.24	977.52	69.75
34	Morbi oculi	64	1,132	1,196	1,036	....	108	1,144	52	21,149	16.73	....	905.59	....	94.41	18.68
35	Morbi systemat. urin. et sexual. (exclusive veneria et syphilis)	59	1,116	1,175	1,029	19	69	1,117	58	24,889	16.50	.28	921.22	17.01	61.77	22.30

INTERNATIONAL TABLE VII.—*Most important diseases by arms of service.*

	Diseases of the international nosological table.	Absolute numbers—Admissions by arms of service.										Proportionate numbers—Admissions per 1,000 of mean strength.									
		Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Medical Corps.	Philippine Scouts.	Others.	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Medical Corps.	Philippine Scouts.	Others.
1	Alkoholismus acutus, including delirium tremens.	672	178	564	42	27	22	22	49	2	19	25.92	14.17	42.58	11.89	20.30	29.61	27.16	14.54	0.41	15.32
2	Bronchitis acuta	1,367	758	1,008	300	66	32	15	78	170	80	52.73	60.35	76.11	81.96	49.62	43.07	18.52	23.15	34.78	64.52
3	Cholera asiatica	86	10	1	1	1	....	1	5	44	....	3.32	.80	.08	.28	.75	....	1.23	1.48	9.00	....
4	Cholera nostras	22	9	3	1	....	2	....	4	6	....	.85	.72	.23	.28	....	2.69	....	1.19	1.23	....
5	Diphtheria et croup	12	5	4	2	....	....	....	2	....	1	.46	.40	.30	.57	....	....	....	.59	....	.81
6	Dysenteria	1,588	460	102	58	75	6	49	108	88	17	61.25	36.62	7.70	16.43	56.39	8.08	60.49	32.06	18.00	13.71
7	Erysipelas	26	6	4	5	3	1	....	2	....	1	1.00	.48	.30	1.42	2.26	1.35	....	.59	....	.81
8	Febris intermittens (malaria)	5,478	2,155	646	216	221	21	77	187	2,156	73	211.29	171.55	48.77	61.18	166.16	28.26	95.06	55.51	441.08	58.87
9	Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
10	Gonorrhea	2,340	1,426	870	294	95	5	69	111	161	52	90.26	113.52	65.69	83.26	71.43	6.73	85.18	32.95	32.94	41.93
11	Hernia	100	38	47	11	7	3	4	13	7	15	3.86	3.03	3.55	3.12	5.26	4.04	4.94	3.86	1.43	12.10
12	Influenza	767	279	810	138	84	39	10	103	1	99	29.58	22.21	61.16	39.08	63.16	52.49	12.35	30.57	.20	79.84
13	Insolatio (Hitzschlag, coup de chaleur)	79	63	34	-2	6	2	....	3	9	....	3.05	5.02	2.57	.57	4.51	2.69	....	.89	1.84	....
14	Meningitis cerebro-spinalis epidemica	1	....	1	....	....	....	....	....	....	....	.04	....	.08	....	....	....	....	....	....	....
15	Morbilli	130	69	118	41	9	2	2	9	3	76	5.01	5.49	8.91	11.61	6.77	2.69	2.47	2.67	.61	61.29
16	Parotitis epidemica	206	53	100	46	8	1	2	9	22	45	7.95	4.22	7.55	13.03	6.02	1.35	2.47	2.67	4.50	36.29
17	Pleuritis	75	34	38	10	5	2	4	17	14	7	2.89	2.71	2.87	2.83	3.76	2.69	4.94	5.05	2.86	5.65
18	Pneumonia crouposa sive lobaris	73	41	28	23	9	....	2	9	20	11	2.82	3.26	2.11	6.51	6.77	....	2.47	2.67	4.09	8.87
19	Rheumatismus articulorum	252	129	136	36	14	4	6	19	17	14	9.72	10.27	10.27	10.20	10.53	5.38	7.41	5.64	3.48	11.29
20	Scarlatina	3	2	3	1	....	....	....	2	....	....	.12	.16	.23	.28	....	....	....	.59	....	....
21	Scorbutus	1	....	....	....	....	....	....	....	....	1	.04	....	....	....	....	....	....	....	....	.81
22	Syphilis	684	413	275	85	29	2	11	41	17	28	26.38	32.88	20.76	24.07	21.80	2.69	13.58	12.17	3.48	22.58
23	Trachoma	15	9	11	1	....	....	1	....	3	....	.58	.72	.83	.28	....	....	1.23	....	.61	....
24	Tuberculosis pulmonum	87	37	49	14	3	4	4	20	35	10	3.36	2.95	3.70	3.96	2.26	5.38	4.94	5.94	7.16	8.06
25	Tuberculosis ceterorum organorum	12	9	6	1	1	2	....	2	3	1	.46	.72	.45	.28	.75	2.69	....	.59	.61	.81
26	Typhus abdominalis	114	109	50	23	16	2	2	19	5	8	4.40	8.68	3.78	6.51	12.03	2.69	2.47	5.64	1.02	6.45
27	Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
28	Ulcus molle (inclusive adenitis venerea)	1,023	517	341	115	41	3	20	41	39	19	39.46	41.16	25.75	32.57	30.83	4.04	24.69	12.17	7.98	15.32
29	Variola	18	5	1	2	1	....	2	....	7	3	.69	.40	.08	.57	.75	....	2.47	....	1.43	2.42
30	Morbi auris	251	118	111	42	12	6	3	22	15	17	9.68	9.39	8.38	11.89	9.02	8.08	3.70	6.53	3.07	13.71

31	Morbi cordis	126	71	56	10	8	1	7	13	10	20	4.86	5.65	4.23	2.83	6.02	1.35	8.64	3.86	2.05	16.13
32	Morbi cutis	3,037	1,834	1,371	140	124	26	39	132	517	84	117.14	146.00	103.52	124.61	93.23	31.99	48.15	39.18	105.77	67.74
33	Morbi mentis	28	10	17	4	.....	1	....	9	1	2	1.08	.80	1.28	1.13	....	1.35	....	2.67	.20	1.61
34	Morbi oculi	423	204	202	70	16	7	13	51	120	26	16.32	16.24	15.25	19.82	12.03	9.42	16.05	15.14	24.55	20.97
35	Morbi systemat. urin et sexual. (exclusive veneria et syphilis)	185	173	271	38	11	4	8	53	49	24	18.71	13.77	20.46	10.76	8.27	5.38	9.88	15.73	10.02	19.35

INTERNATIONAL TABLE VIII.—*Most important diseases by months.*

	Diseases of the international nosological table.	Admissions by months.											
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	Alkoholismus acutus, including delirium tremens	149	115	154	119	115	132	118	129	143	132	114	177
2	Bronchitis acuta	558	575	377	328	274	196	157	167	211	253	353	425
3	Cholera asiatica	29	1	1	25	23	18	14	8	11	9	8	2
4	Cholera nostras	....	....	6	4	3	9	9	12	4	....	....	....
5	Diphtheria et croup	2	2	5	....	1	2	2	....	1	2	1	2
6	Dysenteria	243	221	246	249	274	229	271	226	201	162	137	92
7	Erysipelas	8	10	8	3	3	2	1	3	1	2	2	5
8	Febris intermittens (malaria)	1,263	1,031	985	1,092	1,141	1,074	1,099	1,030	905	685	507	418
9	Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....
10	Gonorrhea	486	337	357	419	435	471	196	455	528	489	460	487
11	Hernia	27	17	27	18	25	15	21	20	23	17	15	20
12	Influenza	264	753	725	191	84	16	7	29	43	61	46	111
13	Insolatio (Hitzschlag, coup de chaleur)	3	11	8	19	19	18	45	19	22	13	13	8
14	Meningitis cerebro-spinalis epidemica	....	....	....	....	....	1	1	....	....	....	....	....
15	Morbilli	14	57	118	77	35	43	15	4	2	1	59	34
16	Parotitis epidemica	63	80	107	73	54	39	33	10	5	2	4	22
17	Pleuritis	28	16	23	17	15	18	14	14	18	12	18	13
18	Pneumonia crouposa sive lobaris	22	24	29	17	16	18	11	11	16	20	17	15
19	Rheumatismus articulorum	77	66	60	56	53	37	43	31	49	57	50	48
20	Scarlatina	1	1	1	1	5	1	....	....	....	1	....	....
21	Scorbutus	....	....	....	1	....	....	....	....	....	....	1	....
22	Syphilis	190	135	124	133	112	107	122	112	132	132	125	161
23	Trachoma	8	2	6	1	1	3	7	4	....	1	3	4
24	Tuberculosis pulmonum	35	24	15	25	24	21	26	11	29	20	15	18
25	Tuberculosis ceterorum organorum	5	5	4	2	1	6	2	5	3	2	2	....
26	Typhus abdominalis	48	23	17	19	16	26	29	58	42	36	23	11
27	Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....	....
28	Ulcus molle (inclusive adenitis venerea)	201	161	167	181	176	144	189	170	181	198	181	210
29	Variola	3	4	5	5	7	4	5	....	....	3	....	3
30	Morbi auris	61	57	63	40	47	42	57	51	40	47	45	47
31	Morbi cordis	37	37	27	31	20	21	20	19	28	29	23	30
32	Morbi cutis	655	533	588	588	661	730	752	734	678	624	527	534
33	Morbi mentis	9	2	7	6	5	4	7	8	6	7	5	6
34	Morbi oculi	108	83	126	105	97	110	95	88	76	86	81	77
35	Morbi systemat. urin. et sexual. (exclusive veneria et syphilis)	124	91	86	82	90	90	108	87	73	112	78	95

INTERNATIONAL TABLE IX.—*Deaths by rank, by length of service, and by age.*

Cause of death.		Total number of deaths (enlisted men).		Deaths by rank and length of service.				Deaths by age.					
		Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year and of more service.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Deaths from sickness.	Soldiers present with troops	499	7.79	96	36	134	233	31	209	136	57	33	33
	Soldiers absent from troops	......	......	......	......	......	......	......	......	......	......	......	......
Accidental deaths	Soldiers present with troops	79	1.23	12	10	17	40	3	44	14	7	4	7
	Soldiers absent from troops	......	......	......	......	......	......	......	......	......	......	......	......
Suicides	Soldiers present with troops	32	.50	13	1	3	15	3	10	12	5	...	2
	Soldiers absent from troops	......	......	......	......	......	......	......	......	......	......	......	......
Grand total		610	9.52	121	47	154	288	37	263	162	69	37	42

INTERNATIONAL TABLE X.—*Discharges from the Army for physical disability, temporary or permanent, by rank, by length of service, and by age.*

Cause of discharge.	Total discharges (enlisted men).		Rank and length of service.				Age.					
	Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year and of more service.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Physical disability existent prior to enlistment	334	5.22	10	219	60	45	12	218	67	29	4	4
Physical disability incident to service	877	13.69	124	97	243	413	22	430	227	107	46	45
Physical disability not incident to service	371	5.79	28	80	118	145	13	226	91	30	9	2
Grand total	1,582	24.70	162	396	421	603	47	874	385	166	59	51

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REPORT

MEDICAL LIBRARY

OF THE

SURGEON-GENERAL OF THE ARMY

TO THE

SECRETARY OF WAR

FOR THE

FISCAL YEAR ENDING JUNE 30, 1905.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1905.

REPORT

OF THE

SURGEON-GENERAL OF THE ARMY

TO THE

SECRETARY OF WAR

FOR THE

FISCAL YEAR ENDING JUNE 30, 1905.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1905.

LETTER OF SUBMITTAL.

War Department.
Office of the Surgeon-General,
Washington, August 19, 1905.

Sir: I have the honor to submit herewith a report upon the work of the Medical Department of the Army, beginning with a financial statement for the fiscal year ending June 30, 1905, and including a study of the health and sanitary conditions of the Army for the calendar year 1904.

Very respectfully,

R. M. O'Reilly,
Surgeon-General, U. S. Army.

Hon. William H. Taft,
Secretary of War.

TABLE OF CONTENTS.

	Page.
Financial statement	9
Health and sanitary condition of the whole Army, American troops, white and colored	12
Sickness and mortality	13
Discharges for disability	15
Influence of rank	15
Influence of arm of service	16
Comparison with foreign armies	16
Recruiting	24
Gunshot and other wounds in action	35
Surgical operations	38
Ultimate results of operations	38
Sanitary conditions	39
Health of troops in the United States, continental, exclusive of Alaska	42
Sickness and mortality	42
Prevalence of special diseases	45
Typhoid fever	45
Undetermined fevers	49
Malarial fevers	50
Smallpox	51
Measles	51
Diarrheal diseases	51
Leprosy	52
Beriberi	52
Epidemic cerebrospinal meningitis	53
Spotted fever	53
Yellow fever	53
Malta fever	53
Tuberculosis	53
Venereal diseases	55
Alcoholism	55
Insanity	56
Pneumonia	56
Intestinal parasites	57
Liver abscess	58
External causes	58
Influence of station	58
Influence of age and length of service	68
Influence of season	70
Influence of race	71
Sanitation	72
Department of the East	72
Department of Texas	74
Department of the Lakes	75
Department of California	76
Department of Dakota	76
Department of the Colorado	77
Department of the Missouri	78
Department of the Gulf	79
Department of the Columbia, exclusive of Alaska	80
Health of troops in Alaska	80
Sickness and mortality	80
Influence of season	84

Page.

- Health of troops in Alaska—Continued.
  - Influence of station 84
  - Influence of age 84
  - Influence of length of service 85
  - Influence of length of service in Alaska 85
  - Sanitation 85
- Health of troops in Cuba 87
- Health of troops in Porto Rico 87
  - Sickness and mortality 87
  - Influence of station 88
  - Influence of season 90
  - Influence of age 90
  - Recruiting 90
  - Sanitation 96
- Health of troops in Hawaii 96
  - Sickness and mortality 96
  - Influence of season 97
  - Influence of age 98
  - Influence of length of service 98
  - Influence of length of service in Hawaii 98
  - Sanitation 99
- Health of troops in China 99
  - Sickness and mortality 100
  - Influence of season 101
  - Influence of age 101
  - Influence of length of service 102
  - Influence of length of service in China 102
  - Sanitation 102
- Health of troops in the Philippine Islands 102
  - American troops 102
    - Sickness and mortality 102
    - External causes 103
    - Deaths 103
    - Prevalence of special diseases 105
      - Typhoid fever 105
      - Undetermined fevers 106
      - Malarial fevers 106
      - Smallpox 107
      - Asiatic cholera 107
      - Diarrheal diseases 107
      - Beriberi 107
      - Dengue 107
      - Malta fever 107
      - Tuberculosis 107
      - Venereal diseases 108
      - Alcoholism 108
      - Insanity 108
      - Pneumonia 108
      - Liver diseases 108
      - Other diseases 108
    - Prevalence of sickness by departments, islands, and posts 109
    - Influence of season 112
    - Influence of age and length of service 113
    - Invaliding home 114
  - Filipino troops 115
    - Sickness and mortality 115
    - Discharges for disability 116
    - Deaths 116
    - Influence of season 117
    - Killed and wounded in action 118
    - Recruiting 119
  - Prevalence of disease by races 125
  - Sanitation 126
    - Department of Luzon 127
    - Department of Visayas 128
    - Department of Mindanao 128
- Health of troops on transports 129

	Page.
Medical officers	129
Army Medical School	133
Contract surgeons	134
Contract dental surgeons	134
Hospital Corps	135
Nurse Corps (female)	138
Maneuvers	139
The general hospitals:	
Army and Navy General Hospital, Hot Springs, Ark	140
U. S. Army General Hospital, Fort Bayard, N. Mex	142
U. S. Army General Hospital, Presidio of San Francisco, Cal	145
U. S. Army General Hospital, Washington Barracks, D. C	145
Providence Hospital, Washington, D. C	146
Hospital construction and repair	146
Medical and hospital supplies	148
The Army Medical Museum	150
Library of the Surgeon-General's Office	153
Artificial limbs and apparatus	153
Appliances and trusses	153
Card system for reports of sick and wounded	153
Classification of diseases	154
Remarks and special recommendations:	
Relation of the Medical Department to hygiene and sanitation of the Army	156
Instruction of the line of the Army in sanitation	157
Sanitation in the field	157
Physical training	158
Post laundries	159
Anemia commission and laboratories for original research	159
Medical observers of Russo-Japanese war	160
Discharges for disability, table of	160
Surgical operations, table of	163
Chart showing relative mortality of certain special diseases	171
Chart showing relative prevalence of certain special diseases	172
Statistical tables	173
International tables	200

REPORT

OF

THE SURGEON-GENERAL.

FINANCIAL STATEMENT, 1905.[a]

Medical and hospital department, 1905.

Appropriated by act approved April 23, 1904		$550,000.00
Refundments on account of supplies transferred:		
To Navy Department	$250.14	
To States and Territories for use of organized militia	21,900.43	
Refundments on account of supplies sold:		
To State of California for use of militia	2,293.38	
To civil government, Philippine Islands	2,659.46	
Other refundments during the year	447.34	
		27,550.75
Total to be accounted for		577,550.75
Disbursed during the year:		
Expenses of medical-supply depots	618.27	
Medical supplies	220,122.45	
Medical attendance and medicines	9,486.46	
Medical expenses of recruiting	44,327.44	
Pay of nurses	2,107.57	
Pay of other employees	141,156.57	
Washing of hospital linen	21,507.66	
Expressage	192.26	
Notary fees	66.50	
		439,585.18
Balances on hand June 30, 1905:		
In United States Treasury and in transit thereto	78,933.91	
In hands of disbursing officers—		
New York City	25,822.76	
Washington, D. C	10,497.26	
St. Louis, Mo	15,434.28	
San Francisco, Cal	3,767.78	
Manila, P. I	3,509.58	
		137,965.57
Total accounted for		577,550.75

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[a] The disbursements in this statement include settlements with public creditors made by the accounting officers of the Treasury and charged by them to these appropriations.

Medical and hospital department, 1904.

Balance on hand July 1, 1904, acts of March 2, 1903, and April 27, 1904		$189,235.69
Refundments on account of supplies transferred:		
To Navy Department	$323.56	
To Isthmian Canal Commission	228.48	
To States and Territories for use of organized militia	9,878.72	
Other refundments during the year	258.48	
		10,689.24
Total to be accounted for		199,924.93
Disbursed during the year:		
Expenses of medical-supply depots	128.34	
Medical supplies	178,663.67	
Medical attendance and medicines	5,981.79	
Medical expenses of recruiting	4,734.89	
Pay of nurses	552.88	
Pay of other employees	2,200.23	
Washing of hospital linen	1,941.05	
Expressage	25.93	
Notary fees	16.00	
		194,244.78
Balances on hand June 30, 1905:		
In United States Treasury and in transit thereto	5,150.85	
In hands of disbursing officer, Washington, D. C	529.30	
		5,680.15
Total accounted for		199,924.93

Medical and hospital department, 1903.

Balance on hand July 1, 1904, act of June 30, 1902		$262,882.40
Refundments during the year		178.30
Total to be accounted for		263,060.70
Disbursed during the year:		
Medical supplies	$54,617.01	
Expressage	20.16	
Miscellaneous	6.25	
		54,643.42
Carried to surplus fund		208,417.28
Total accounted for		263,060.70

Medical and hospital department, 1902 and prior years.

Refunded during the year	$40.70
Carried to surplus fund	40.70

Medical and hospital department, certified claims.

Appropriated by act approved March 3, 1905	$8.40
Disbursed during the year	8.40

Judgments, Court of Claims (War).

Appropriated by act approved March 3, 1905, on account of claims arising under the Medical Department of the Army	$305.70
Disbursed during the year	305.70

Reimbursement to contract nurses.

Balance on hand July 1, 1904, act of June 6, 1900	$3,278.98
Carried to surplus fund	3,278.98

Report of army board on origin and spread of typhoid fever, 1903–4.

Balance on hand July 1, 1904, act of March 3, 1903	$22,690.54
Disbursed during the year	3,036.53
Balance on hand June 30, 1905	19,654.01

Artificial limbs, 1905.

Appropriated by act approved April 28, 1904	$120,000.00
Disbursed during the year	107,822.50
Balance on hand June 30, 1905	12,177.50

Artificial limbs, 1904.

Balance on hand July 1, 1904, act of March 3, 1903	$10,730.73
Refunded during the year	3.00
Total to be accounted for	10,733.73
Disbursed during the year	4,030.72
Balance on hand June 30, 1905	6,703.01
Total accounted for	10,733.73

Artificial limbs, 1903.

Balance on hand July 1, 1904, act of June 28, 1902	$52,168.84
Disbursed during the year	240.54
Carried to surplus fund	51,928.30
Total accounted for	52,168.84

Appliances for disabled soldiers, 1905.

Appropriated by act approved April 28, 1904	$2,000.00
Disbursed during the year	1,160.55
Balance on hand June 30, 1905	839.45

Appliances for disabled soldiers, 1904.

Balance on hand July 1, 1904, act of March 3, 1903	$763.90
Disbursed during the year	52.72
Balance on hand June 30, 1905	711.18

Appliances for disabled soldiers, 1903.

Balance on hand July 1, 1904, act of June 28, 1902	$823.09
Carried to surplus fund	823.09

Army Medical Museum, 1905.

Appropriated by act approved April 23, 1904	$5,000.00
Disbursed during the year	4,331.78
Balance on hand June 30, 1905	668.22

Army Medical Museum, 1904.

Balance on hand July 1, 1904, act of March 2, 1903	$911.29
Disbursed during the year	712.37
Balance on hand June 30, 1905	198.92

Army Medical Museum, 1903.

Balance on hand July 1, 1904, act of June 30, 1902	$77.34
Carried to surplus fund	77.34

Library, Surgeon-General's Office, 1905.

Appropriated by act approved April 23, 1904	$10,000.00
Disbursed during the year	6,320.05
Balance on hand June 30, 1905	3,679.95

Library, Surgeon-General's Office, 1904.

Balance on hand July 1, 1904, act of March 2, 1903	$3,492.78
Disbursed during the year	3,427.61
Balance on hand June 30, 1905	65.17

Library, Surgeon-General's Office, 1903.

Balance on hand July 1, 1904, act of June 30, 1902	$88.92
Disbursed during the year	8.00
Carried to surplus fund	80.92
Total accounted for	88.92

Furnishing trusses to disabled soldiers (sections 1176, 1177, and 1178, Revised Statutes, and act of March 3, 1879).

Balance on hand July 1, 1904	$853.40
Drawn during the year	5,000.00
Total to be accounted for	5,853.40
Disbursed during the year	5,522.85
Balance on hand June 30, 1905	330.55
Total accounted for	5,853.40

General summary of all appropriations.

Balances on hand July 1, 1904	$547,997.90
Appropriated	692,314.10
Refunded	38,461.99
Total to be accounted for	1,278,773.99
Disbursed	825,453.70
Carried to surplus fund	264,646.61
Balances on hand June 30, 1905	188,673.68
Total accounted for	1,278,773.99

THE ARMY.

Since the Spanish-American war important changes have taken place in the conditions under which American troops are serving. Before that time their stations were practically confined to the geographical limits of the United States proper, while now they are serving also in Alaska, Hawaii, China, and the Philippine Islands. Before that time, also, with the exception of a few Indians, there were no native troops; now there are native troops both in Porto Rico and the Philippines. For these reasons, and for purposes of better comparison with foreign armies, the arrangement of the annual report has been materially changed this year. The Army has been divided into the American Army proper, white and colored, which alone is meant when the "Army" is referred to, and is used in all comparisons with foreign armies and native troops—Porto Rican and Filipino—which are separately considered.

This year for the first time, too, admissions represent admissions strictly. This change will cause a somewhat higher admission rate than would have resulted under the old method where admissions really represented cases. The following table shows the relation of admissions to cases in the classes of disease where the difference between the two sets of figures is most marked:

Disease.	Admissions and cases (men) compared.			
	Admissions.	Cases (men).	Excess of admissions over cases.	Percentage of admissions deducted to show cases.
Typhoid fever	280	277	3	1.07
Fevers, undetermined	706	671	35	4.96
Malarial fevers	4,955	4,146	809	16.33
Measles	847	836	11	1.30
Influenza	2,485	2,333	152	6.12
Dysentery	1,321	1,184	137	10.37
Dengue	934	881	53	5.67
Malta fever	5	4	1	20.00
Tuberculosis, pulmonary	250	244	6	2.39
Tuberculosis of other organs	27	24	3	11.11
Syphilis and its results	1,996	1,583	413	20.79
Chancroid and its results	1,961	1,728	233	11.88
Gonorrhea and its results	7,106	5,846	1,260	17.73
Insanity	99	95	4	4.04
Diarrhea and enteritis	5,032	4,542	490	9.74
Inguinal and other herniæ	313	274	39	12.46
Appendicitis	228	204	24	10.53
Total for disease	65,404	58,877	6,527	9.98
Total for injury	14,182	13,363	819	5.78
Grand total	79,586	72,240	7,346	9.23

This year also the tables refer to enlisted men only, officers being considered separately.

HEALTH OF THE ARMY.

The mean enlisted strength of the Army, American troops, white and colored, for the year 1904, as reported on the monthly sick reports of the Medical Department was 58,740, and on returns to The Military Secretary, 60,139. As the former figure represented the strength of the commands from which the sick returns were made it has been used in calculating all ratios, except those for deaths and discharges. As all deaths and discharges were reported, no matter whether or not occurring with a command, the total strength as obtained from The Military Secretary was used in calculating ratios pertaining to those subjects.

The total number of admissions to sick report was 79,586, equal to an admission rate of 1,354.89, as compared with 1,507.43 for the previous year and 1,985.60 for the quinquennial period 1898–1902.

There were 406 deaths from all causes, equal to 6.75 per thousand, as compared with 8.64 for the previous year and 17.39 for the quinquennial period.

The discharges for disability were 1,377, and the rate 22.90, as compared with 25.87 for the preceding year and 22.87 for the quinquennial period.

The number of men constantly noneffective was 2,925.31, giving a rate of 49.80, as compared with 54.78 for the American and native troops combined for the preceding year.

These proportions are very satisfactory and show a steady and progressive improvement in the health of the Army.

By far the most important diseases affecting the efficiency of the Army during the year have been the venereal, which were first in admissions (188.34), noneffectiveness (12.17) and discharges (3.69), causing 16 per cent of all admissions, 28 per cent of all noneffectiveness, and 18 per cent of all discharges for disease. There were constantly on sick report for this class of diseases 715 men, equal to the loss for the entire year of the services of 11 full companies of infantry. The admission rate was considerably higher than for last year, venereal diseases having advanced from third place to first.

The control of these diseases lies largely in the hands of the civil authorities, and one of the most important steps to that end would appear to be the classing of diseases of this character with other infectious diseases, and the requirement that they shall be reported as such and controlled by health departments.

In the military service a similar course should be followed. At many posts a regular physical inspection of the enlisted men stripped is held once or twice a month, and all men found suffering from venereal diseases are placed under treatment and kept under observation and such measures of restraint as may be necessary until they are cured. It is recommended that these measures be required at all posts.

Soldiers suffering from syphilis, unless with infectious lesions, do not ordinarily require to be excused from duty while undergoing treatment and are usually readily amenable to such treatment, hence their discharge for disability should be exceptional; but owing to the frequency of relapse it is recommended that no soldier who has had syphilis should be reenlisted unless his character and the nature of his service is such as to entitle him to special consideration.

After venereal diseases in order of admission and noneffectiveness were diarrheal diseases, the proportions for which, however, admission 108.36 and noneffective 3.87, show a decided improvement over those for last year.

The figures for malarial diseases, admission 84.36, noneffective 1.87, also showed a marked reduction as compared with 1903; these diseases fell from first place to third in order of occurrence.

As a cause of death, pneumonia advanced to first place with a rate of 0.65, tuberculosis was second with a rate of 0.57, typhoid fever third, rate 0.33, while for diarrheal diseases the figure of last year was reduced more than one-half, to 0.30.

The case mortality of certain special diseases noted was as follows:

	Per cent.
Epidemic cerebrospinal meningitis	58.33
Pneumonia	15.60
Tuberculosis of the lungs	12.00
Typhoid fever	7.14
Erysipelas	6.25
Measles	1.65
Dysentery	1.13
Syphilis	.10

As a cause of discharge for disability venereal diseases led, tuberculosis was second with a rate of 1.80, insanity third, rate 1.46, and organic disease of the heart fourth, with 1.36 per thousand of mean strength.

By reference to the table of causes of discharge for disability, page 160, it will be seen that of the total 1,377 discharges for disability, 793, or 57.59 per cent, were for disabilities not in the line of duty, of which 546, or 68.85 per cent, were contracted before enlistment; 279 men were discharged within three months after enlistment.

A study of the causes of the discharges for disabilities contracted before enlistment shows that with few exceptions they should have been discovered by the medical examiner, and a large majority of them should not have been overlooked even by the recruiting officer. Of the 584 discharges in the line of duty 82 were for injuries; of the remaining 502, 19 per cent were for tuberculosis, 10 per cent for insanity, 8.5 per cent for diarrheal diseases, and 7 per cent for diseases of the ear.

There were 206 admissions for gunshot wounds, with 44 deaths, and 2,850 admissions for wounds other than gunshot, with 15 deaths. Twenty-one men were killed in action and 42 wounded; of the killed 2 were by gunshot; of the wounded 28 were by gunshot. There were 45 soldiers drowned, 11 per cent of the total deaths from all causes, indicating how important it is that all soldiers should have systematic instruction in swimming. Twenty-seven soldiers committed suicide; 10 deaths were due to homicide.

Notwithstanding that a large part of the army was serving in the Tropics there was no admission for snake bite.

OFFICERS.[a]

The mean strength of officers was 3,421 from the Medical Department reports and 3,815 from The Military Secretary. There were 2,276 admissions, 27 deaths, and 106.82 constantly noneffective from all causes, equal to proportions of 665.30, 7.08, and 31.25, respectively, compared with 1,354.89, 6.75, and 49.80 for enlisted men. It will be seen that the admission rate was less than one-half that for enlisted men and the constantly noneffective figure considerably lower. The death rate was higher, but this is due to the much larger porportional number of deaths among officers from gunshot wounds, the respective death rates from disease being 2.62 for officers and 3.87 for enlisted men.

Influenza was of first importance as a cause of admission from disease, with a rate of 68.99; diarrheal diseases, malaria, bronchitis, and dengue followed in regular order, with rates of 65.47, 48.52, 43.26, and 11.40, respectively. Heart disease caused the most deaths from disease, 0.79 per thousand; there were 11 deaths from wounds and 1 officer was drowned.

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[a] American officers of Philippine Scouts and the Porto Rican regiment are included in the following statements.

THE INFLUENCE OF ARM OF THE SERVICE.

For disease, the engineers had the highest admission rate, with the cavalry next, and the ordnance the lowest. For injuries, the cavalry had the highest admission rate, the engineers next, and the medical department the lowest.

In discharges for disease, the cavalry had the highest figure, with the coast artillery second, and the ordnance lowest; in discharges for injury, the cavalry again led, with field artillery second; the engineers and signal corps had no discharge for disability on account of injury.

The death rate for disease was highest in the signal corps, with engineers next, and lowest in the field artillery; the death ratio for injury was highest in the ordnance, with infantry second, and lowest in the engineers.

The infantry had 14 men killed in action and 27 wounded, giving ratios per thousand of 0.60 and 1.16 respectively; hospital corps had 4 killed and 4 wounded, ratios 1.29 and 1.29; cavalry, 1 killed and 9 wounded, ratios 0.09 and 0.77; signal corps, 1 killed; engineer corps, 1 killed; field artillery, 2 wounded. The hospital corps, a so-called noncombatant branch of the service, led all others in the number of killed and wounded per thousand of strength.

COMPARISON WITH FOREIGN ARMIES.

In the following tables a comparison is made of all the data available from the annexes to the annual reports of the medical departments of the respective countries containing the international tables agreed upon. Unfortunately the figures are not really comparable. In the United States the admissions include all soldiers who are excused from any part of their military duties, while this is not the case in any other country; that portion of the army serving outside the geographical limits of the United States is also included, while this is not the case with any other country except Great Britain. Again, the recruiting conditions vary greatly in each country; the United States and Great Britain rely on voluntary enlistment, while the other countries have conscription; Germany has a much larger number of men to select from than France, and there are other differences of equal importance. The strength is differently estimated in different countries. Some have a low death rate because their sick are promptly discharged or retired and die out of service instead of on sick report. Deaths and discharges considered together would form one of the most reliable bases of comparison, and international agreement has provided for their publication in the annexes referred to, but the British tables are the only foreign tables thus far received which contain data with regard to discharge.

From the tables it will be seen that the highest admission rate was 1,354.89 in the American Army, and the lowest, 351.30, in the Russian; the highest death ratio was 6.75 in the American Army, and the lowest, 2.10, in the Prussian; the highest noneffective rate was 49.80, American, and the lowest 24.65, Prussian.

Of the 35 diseases shown in the following table the only ones in which the admission figures for American troops are better than those of most other countries are bronchitis (acute), diphtheria and croup, erysipelas, pleuritis, scarlatina, and diseases of the ear.

The very high proportion for alcoholism in the American Army as compared with that of the British is partly due to the fact that in the latter service only admissions to hospital are counted. It is notable that while the British have less than half the American admission rate for dysentery, their death rate is practically the same, and that while their ratio of admission for malaria is about the same, their death rate is nearly three times as great; the American admission rate for malaria is nearly eighty times that of the French, while the death rate is only five times as great; these facts point to difference in the method of computing admissions. The figures for measles and mumps compare very unfavorably with other armies except the French.

The comparatively high American death rate for tuberculosis is explained by the fact that in the United States Army tuberculosis patients are sent to a sanatorium and retained in service for long periods, while in other armies they are promptly discharged; the high admission rate is no doubt due to the present defective system of medical examination of recruits.

The undue prevalence of typhoid fever in the Army is partly explainable by its undue prevalence in the civil communities where the troops are stationed, as a result of the general failure to purify water and sewage in American municipalities.

Notable is the absence of smallpox in the Prussian, Bavarian, and Dutch armies; more care in vaccination would give like results in other services.

TABLE A.—*A comparison of the admission and death rates of the U. S. Army for certain special diseases with those of foreign armies—Proportional numbers.*

	Admission rates per 1,000 of mean strength.										Death rates per 1,000 of mean strength.									
	American troops, enlisted, year 1904.			British, year 1902.	French, year 1901.	Prussian, year 1902.	Bavarian, year 1901.	Austro-Hungarian, year 1903.	Dutch, year 1902.	Russian, year 1902.	American troops, enlisted, year 1904.			British, year 1902.	French, year 1901.	Prussian, year 1902.	Bavarian, year 1901.	Austro-Hungarian, year 1903.	Dutch, year 1902.	Russian, year 1902.
	White.	Colored.	Total.								White.	Colored.	Total.							
Alkoholismus acutus, including delirium tremens	26.36	10.25	25.50	3.2	0.11	0.09	0.19	0.0	0.04	0.1	0.18	0.31	0.18	0.11	.....	.....	.....	0.00	.....	.....
Bronchitis acuta	52.25	59.28	52.62	23.5	65.3	48.0	84.4	63.8	86.3	18.9	.....	.....	.....	.05	0.03	.....	0.02	.15	.....	0.04
Cholera Asiatica	.02	.....	.02	.....	.....	.....	.....	.....	.....	.2	.....	.....	.....	.02	.....	.....	.....	.....	.....	.10
Cholera nostras	.22	.....	.20	.....	.....	.....	.....	.....	.....	.004	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria et croup	.20	.....	.19	.4	1.8	.45	.05	0	.52	.03	.....	.....	.....	.02	.07	0.01	.02	.....	.....	.005
Dysenteria	23.52	4.17	22.49	10.1	3.1	.03	.....	.5	.16	1.0	.26	.....	.25	.24	.06	.....	.....	.03	.....	.10
Erysipelas	.84	.32	.82	.9	2.2	1.1	1.4	1.5	1.8	2.9	.05	.....	.05	.03	.03	.01	.02	.01	.....	.05
Febris intermittens (malaria)	70.03	18.58	67.30	84.2	1.7	.31	.14	1.6	21.5	38.4	.....	.....	.....	.14	.01	.....	.....	.01	.....	.05
Febris recurrens	.....	.....	.....	7.0	0	.....	.....	0	.....	.05	.....	.....	.....	.10	0	.....	.....	0	.....	.002
Gonorrhea	122.89	86.83	120.97	70.5	17.5	12.0	14.3	30.1	17.3	21.9	.....	.....	.....	.....	.....	.....	.....	.01	.....	.....
Hernia	5.38	4.49	5.33	3.3	2.7	2.0	1.2	4.8	3.08	2.1	.....	.....	.....	.....	.....	.....	.....	.01	.....	.002
Influenza	43.56	19.87	42.31	13.8	19.8	5.5	14.3	3.3	27.8	17.4	.....	.....	.....	.01	.31	.01	.02	.03	.....	.03
Insolatio (Hitzschlag c. de chaleur)	.47	.32	.46	1.1	.38	.20	.28	.3	.04	.02	.....	.....	.....	.20	.....	.02	.....	.05	.....	.001
Meningitis cerebrospinalis	.22	.....	.20	.1	.09	.03	.20	0	.08	.004	.12	.....	.12	.03	.06	.01	.08	0	0.08	.003
Morbilli	14.99	4.17	14.12	1.5	11.6	1.0	.98	.7	1.2	.4	.25	.....	.23	.....	.09	.....	.....	.....	.....	.02
Parotitis epidemica	10.57	4.17	10.23	.5	23.7	1.4	1.9	1.9	.28	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.001
Pleuritis	3.15	5.45	3.27	0	8.4	3.8	0	5.5	0	9.3	.04	.....	.03	0	.11	.05	0	.19	0	.22
Pneumonia crouposa sive lobaris	4.01	8.65	4.26	5.9	4.2	6.6	7.7	1.5	.59	6.7	.58	1.56	.65	.82	.30	.22	.17	.28	.32	.43
Rheumatismus articulorum	19.81	19.87	19.81	20.3	18.9	7.7	13.0	9.9	12.5	6.3	.02	.....	.02	.03	.03	.02	.02	.02	.04	.01
Scarlatina	.32	.....	.31	2.5	5.2	.73	.77	.1	1.2	.1	.2	.....	.02	.04	.21	.04	.02	.02	.04	.005
Scorbutus	.01	.....	.03	.1	.002	.....	.....	.2	.....	1.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.01
Syphilis	35.11	13.78	33.98	75.0	6.7	4.0	4.3	19.2	4.9	12.8	.04	.....	.03	.11	.....	.....	.....	.02	.....	.01
Trachoma	.86	.32	.83	.....	.07	.46	.13	4.7	.16	6.6	.....	.....	.....	.....	.....	.....	.....	.....	.04	.....
Tuberculosis pulmonum	4.19	5.45	4.26	3.0	5.4	1.6	2.2	1.2	3.5	3.9	.47	.93	.50	.51	.48	.17	.21	.22	.4	.85
Ceterorum organorum	.43	.96	.46	.4	1.9	.37	.29	2.0	.52	.....	.05	.31	.07	.04	.45	.09	.11	.04	.2	.....
Typhus abdominalis	5.00	.64	4.77	9.9	4.3	.70	5.2	1.6	.72	4.0	.35	.....	.33	1.70	.63	.08	.38	.22	.08	.68
Typhus exanthematicus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.02
Ulcus molle (incl. adenitis venerea)	33.57	30.12	33.39	0	2.9	2.3	0	9.6	0	6.6	.....	.....	.....	0	.....	.....	0	.01	0	.....
Variola	.32	.64	.34	.2	.69	.....	.....	0	.....	.1	.05	.....	.05	.03	.....	.....	.....	.....	.....	.02
Morbi auris	9.91	2.24	9.50	10.9	5.8	11.7	18.5	12.6	16.0	12.3	.....	.....	.....	.01	.....	.01	.02	.03	.....	.11
Morbi cordis	4.62	3.52	4.56	13.7	3.2	3.0	5.2	1.7	2.0	2.3	.23	.62	.25	.46	.08	.03	.09	.04	.08	.06
Morbi cutis	31.11	9.28	29.95	44.6	18.5	14.1	11.9	131.0	179.7	45.9	.....	.....	.....	.....	.....	.....	.....	.05	.08	.03
Morbi mentis	1.69	1.60	1.69	2.1	.4	.68	.65	.2	.88	.6	.02	.....	.02	.03	.01	.....	.....	.....	.....	.02
Morbi oculi	17.58	22.43	17.84	11.5	6.2	14.2	21.7	26.2	32.7	17.1	.....	.....	.....	.....	.....	.....	.....	.00	.....	.....
Morbi, systemat. urin. et sexual (exclusive venerie et syphilis)	19.80	30.44	20.36	16.3	8.9	5.2	5.7	11.3	10.9	5.5	.16	.....	.15	.13	.11	.04	.08	.07	.16	.09

TABLE B.—*A comparison of the returned to duty, death, and otherwise disposed of rates thousand*

	Returned to duty rates, per 1,000 of cases disposed of for each disease.							
	American troops, 1904.	British, year 1902.	French, year 1901.	Prussian, year 1902.	Bavarian, year 1901.	Austro-Hungarian, year 1903.	Dutch, year 1902.	Russian, year 1902.
Alkoholismus acutus, including delirium tremens	974.0	......	......	846.2	916.7	0	......	969.2
Bronchitis, acuta	985.9	......	......	986.1	985.2	924.1	986.9	987.0
Cholera Asiatica	1,000.0	......	......	......	......	......	......	589.4
Cholera nostras	946.7	......	......	......	......	750.0	......	1,000.0
Diphtheria et croup	875.0	......	......	887.0	666.7	750.0	1,000.0	806.4
Dysenteria	874.3	......	......	538.5	......	500.0	333.3	791.5
Erysipelas	877.6	......	......	936.7	876.5	868.0	934.8	963.8
Febris intermittens (malaria)	982.9	......	......	919.3	750.0	877.7	953.1	980.4
Febris recurrens	......	......	......	......	......	......	......	937.5
Gonorrhea	948.8	......	......	959.0	954.4	979.1	901.2	998.9
Hernia	787.8	......	......	243.8	126.6	97.7	236.8	229.4
Influenza	985.4	......	......	985.3	967.1	882.9	971.8	986.9
Insolatio (Hitzschlag coup de chaleur)	1,000.0	......	......	810.8	666.7	824.7	1,000.0	937.5
Meningitis cerebrospinalis, epidemica	416.7	......	......	187.5	142.9	0	......	......
Morbilli	930.7	......	......	987.0	866.7	894.3	966.7	945.3
Parotitis epidemica	954.1	......	......	993.3	992.2	973.2	1,000.0	997.4
Pleuritis	922.3	......	......	560.5	0	318.2	0	690.7
Pneumonia crouposa, sive lobaris	760.5	......	......	713.3	379.5	479.4	542.9	854.4
Rheumatismus articulorum	906.0	......	......	756.8	640.9	694.1	777.4	959.6
Scarlatina	888.9	......	......	789.5	604.2	528.3	750.0	906.3
Scorbutus	1,000.0	......	......	500.0	......	921.9	......	786.4
Syphilis	897.0	......	......	965.8	915.3	953.8	906.0	989.3
Trachoma	795.9	......	......	787.6	750.0	380.2	500.0	854.0
Tuberculosis pulmonum	138.9	......	......	6.7	......	9.2	......	121.4
Tuberculosis ceterorum organorum	586.2	......	......	171.6	157.9	204.8	......	......
Typhus abdominalis	876.4	......	......	585.4	817.2	202.5	333.3	698.1
Typhus exanthematicus	......	......	......	......	......	......	......	782.3
Ulcus molle (inclusive adenitis veneria)	956.3	......	......	995.0	0	982.6	0	999.7
Variola	869.6	......	......	......	......	923.1	......	740.0
Morbi auris	861.6	......	......	847.6	880.8	735.3	858.0	789.9
Morbi cordis	584.9	......	......	177.5	423.9	63.9	......	513.6
Morbi cutis	986.5	......	......	981.1	985.2	977.4	987.4	982.5
Morbi mentis	118.8	......	......	36.2	......	98.4	368.4	245.3
Morbi oculi	911.9	......	......	951.7	971.0	896.7	867.9	889.5
Morbi, systemat. urin. et sexual (exclusive venerie et syphilis)	930.2	......	......	805.6	813.7	884.8	809.7	766.8

of the U. S. Army for certain special diseases with those of foreign armies.—Ratio per disposed of.

Death rates per 1,000 of cases disposed of for each disease.								Cases otherwise disposed of in ratios per 1,000 of all cases disposed of for each disease.							
American troops, 1904.	British, year 1902.	French, year 1901.	Prussian, year 1902.	Bavarian, year 1901.	Austro-Hungarian, year 1903.	Dutch, year 1902.	Russian, year 1902.	American troops, 1904.	British, year 1902.	French, year 1901.	Prussian, year 1902.	Bavarian, year 1901.	Austro-Hungarian, year 1903.	Dutch, year 1902.	Russian, year 1902.
7.3	......	......	38.5	......	0	......	......	18.7	......	......	115.4	83.3	0	......	30.8
......	......	......	......	0.19	2.3	......	1.9	14.1	......	......	13.9	14.6	73.6	13.1	11.1
......	......	......	......	......	......	......	406.5	......	......	......	......	......	......	......	4.1
......	......	......	......	......	250.0	......	......	83.3	......	......	......	......	......	......	......
......	......	......	33.5	166.7	......	......	161.3	125.0	......	......	79.5	166.7	250.0	......	32.3
11.1	......	......	......	......	58.8	......	72.2	114.6	......	......	461.5	......	441.2	666.7	136.3
61.2	......	......	10.0	12.3	9.0	......	16.1	61.2	......	......	53.3	111.1	123.0	65.2	20.1
......	......	......	5.4	......	6.4	......	1.3	17.1	......	......	75.3	250.0	115.9	46.9	18.3
......	......	......	......	......	0	......	41.7	......	......	......	......	......	0	......	20.8
......	......	......	......	......	.3	......	......	51.2	......	......	41.0	45.6	20.6	98.8	1.1
......	......	......	......	......	2.9	......	769.7	212.2	......	......	786.2	873.4	899.4	763.2	.9
......	......	......	1.4	1.1	10.6	......	1.9	14.6	......	......	13.3	31.9	106.5	28.2	11.2
......	......	......	90.1	......	165.0	......	62.5	......	......	......	99.1	333.3	10.3	......	......
583.3	......	......	375.0	357.1	0	1,000.0	600.0	......	......	......	437.5	500.0	0	......	400.0
16.2	......	......	1.9	......	......	......	38.5	53.1	......	......	11.2	133.3	105.7	3.3	16.2
......	......	......	......	......	......	......	.5	45.9	......	......	6.7	7.8	26.8	......	2.1
10.3	......	......	13.4	0	35.4	0	23.9	67.4	......	......	426.2	0	646.4	0	285.4
163.9	......	......	34.6	23.5	59.0	57.1	63.6	75.6	......	......	252.0	597.0	461.6	400.0	82.0
.8	......	......	3.1	1.2	1.7	3.1	1.4	93.2	......	......	240.1	357.9	303.9	219.5	39.0
55.6	......	......	50.0	20.8	94.3	31.3	78.1	55.6	......	......	160.5	375.0	377.4	218.7	15.6
......	......	......	500.0	......	......	......	10.8	......	......	......	......	......	78.1	......	202.8
1.0	......	......	.94	......	1.1	......	.7	102.0	......	......	33.3	84.7	45.1	94.0	10.0
......	......	......	......	......	......	500.0	......	204.1	......	......	212.4	250.0	619.8	......	146.0
166.7	......	......	99.8	108.8	193.3	116.3	221.3	694.4	......	......	893.6	891.3	797.5	883.7	657.3
137.9	......	......	230.4	368.4	20.7	291.1	......	275.9	......	......	598.0	473.7	774.5	705.9	......
72.7	......	......	102.5	66.5	134.3	111.1	159.1	50.9	......	......	312.1	116.3	663.2	555.6	142.8
......	......	......	......	......	......	......	129.0	......	......	......	......	......	......	......	88.7
......	......	......	......	0	1.1	0	......	43.7	......	......	5.0	0	16.3	0	.3
130.4	......	......	......	......	......	......	210.0	......	......	......	......	......	76.9	......	50.0
......	......	......	.97	.85	2.1	......	8.9	138.4	......	......	151.4	118.3	262.6	162.0	201.2
56.6	......	......	9.5	17.5	25.9	40.8	25.8	358.5	......	......	813.0	558.5	910.2	959.2	460.6
......	......	......	......	......	.3	.5	.8	13.5	......	......	18.9	14.8	22.3	12.1	16.7
9.9	......	......	2.8	......	......	......	35.7	871.3	......	......	961.0	1,000.0	901.6	631.6	719.0
......	......	......	......	......	.1	......	......	88.1	......	......	48.3	28.9	103.2	132.1	110.5
7.5	......	......	7.0	13.7	6.4	14.9	16.2	62.3	......	......	187.3	172.6	108.8	175.4	217.0

TABLE C.—*Total movement of sick for the U. S.*

	United States Army—Year 1904.						British, year 1902.	
	American troops—Enlisted men.							
	Total white and colored.		White.		Colored.			
	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.
Mean strength:								
Officers and enlisted men								
Enlisted men	[b] 58,740		[b] 55,619		[b] 3,121		254,357	
Admitted to sick report	79,586	55,817	75,915	53,577	3,671	2,240		191,250
Ratio per 1,000 of mean strength	1,354.89	950.24	1,364.92	963.28	1,176.22	717.72		751.9
Disposed of, all causes	[d] 79,771		[d] 76,104		[d] 3,667			
Ratio per 1,000 of mean strength	1,358.04		1,368.28		1,174.95			
Died, all causes	406		381		25		2,152	
Ratio per 1,000 of mean strength	6.75		6.69		7.79		[e] 7.52	
Ratio per 1,000 of all disposed of	5.09		5.01		6.82			
Died of disease	233		212		21			
Ratio per 1,000 of mean strength	3.87		3.72		6.54			
Died of injury	173		169		4			
Ratio per 1,000 of mean strength	2.88		2.97		1.25			
Died on sick report	272		248		24			
Ratio per 1,000 of mean strength	4.52		4.36		7.48			
Ratio per 1,000 of all disposed of	3.41		3.26		6.54			
Died, not on sick report:								
Of injury	120		119		1			
Of disease	14		14					
Accidental deaths								
Suicides								
Died at homes								
Returned to duty	76,412		72,863		3,549			
Ratio per 1,000 of all disposed of	957.89		957.41		967.82			
Otherwise disposed of	3,087		2,993		94			
Ratio per 1,000 of all disposed of	38.70		39.33		25.63			
Total days lost on account of sickness	1,070,664	895,129	1,029,983	865,707	40,681	29,422		[k] 3,972,087
Constantly noneffective on account of sickness	2,925.31	2,445.71	2,814.16	2,365.32	111.15	80.39		[k] 10,882
Ratio per 1,000 of mean strength	49.80	41.64	50.60	42.53	35.62	25.76		[k] 45.65
Average days treatment:								
For each soldier of mean strength	18.23	15.24	18.52	15.57	13.03	9.43		[k] 16.66
For each case of sickness	13.45	16.04	13.57	16.16	11.08	13.14		[k] 22.30

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[a] Mean strength total effective, including officers.

[b] Death rates are calculated on the average strength present and absent—total, 60,139; white, 56,930: colored, 3,209.

[c] Effective present, including officers.

[d] Includes those of cases remaining from previous year.

[e] Calculated on mean strength, including men detached on furlough, etc., 31,669—full strength, 286,026.

[f] Ratio per 1,000 of admissions to sick report, cases disposed of not given.

Army compared with that for foreign armies.

French, year 1901.		Prussian, year 1902.		Bavarian, year 1901.		Austro-Hungarian, year 1903.		Dutch, year 1902.		Russian, year 1902.	
Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.
[a] 554,219	....	....	....	....	....	....	....	....	....	....	....
[c] 488,133	....	537,677	....	63,528	....	291,809	....	24,925	....	1,058,042	....
315,938	128,318	329,699	135,477	58,904	15,740	177,612	90,514	30,316	17,660	371,743	331,442
631	231	613.2	252	927.2	247.8	608.6	310.2	1,214	707	351.3	313.3
....	....	328,956	....	58,932	....	179,469	....	30,844	....	372,526	....
....	....	611.8	....	927.6	....	615.01	....	1,237.5	....	352.1	....
2,977	....	1,080	....	151	....	1,074	....	79	....	4,729	....
5.37	....	2.1	....	2.4	....	3.68	....	3.17	....	4.08	....
[f] 9.42	....	3.3	....	2.6	....	5.98	....	2.56	....	11.6	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
[m] 2,574	2,266	[g] 653	....	105	....	685	....	68	....	4,319	....
4.64	4.09	1.2	....	1.7	....	2.35	....	2.66	....	4.08	....
[f] 8.15	[h] 17.66	2.0	....	1.8	....	3.81	....	[i] 2.19	....	11.6	....
....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....
280	....	[j] 143	....	16	....	90	....	10	....	279	....
123	....	[j] 247	....	25	....	299	....	5	....	131	....
....	....	37	....	5	....	....	....	....	....	....	....
....	....	308,324	....	54,944	....	152,594	....	28,955	....	336,597	....
....	....	937.3	....	932.3	....	850.2	....	937	....	903.5	....
....	....	19,979	....	3,883	....	26,190	....	1,821	....	31,610	....
....	....	60.7	....	65.9	....	145.9	....	59.3	....	84.9	....
5,434,781	....	4,836,829	....	726,992	....	3,729,702	....	....	239,339	10,840,507	....
14,890	....	13,252	....	1,992	....	10,218	....	....	656	29,700	....
26.87	....	24.65	....	31.35	....	35.02	....	....	26.3	28.1	....
9.8	....	9.0	....	11.4	....	12.8	....	....	9.5	10.2	....
[l] 17.2	....	14.2	....	12.3	....	19.9	....	....	13.4	29.1	....

[g] Suicides and accidents treated, 77 not included; added, makes 730; plus 350 "not on sick report" gives total, 1,080.

[k] Men detached and troops on board ship, etc. (mean strength, 15,978; cases, 13,132), excluded from the calculation.

[h] Ratio per 1,000 of admissions to hospital, cases disposed of not given.

[i] Cases remaining from previous year used in the calculation.

[j] Includes those treated.

[l] Average for each case admitted, cases disposed of not given.

[m] All deaths except accidents and suicides.

RECRUITING.

There has continued to be much complaint of the poor quality of recruits received at posts, and that these complaints were generally well founded is shown by the large number of men discharged a short time after enlistment for disabilities existing at enlistment. The reestablishment of the recruiting depots where recruits will be kept for some time under the observation of experienced medical officers before being sent to regiments will do much to obviate the difficulty resulting from the employment of inexperienced civil medical men for the examination of recruits at recruiting stations. Satisfactory results can, however, never be attained until the medical examination of recruits is in the hands of experienced military medical officers. As the size of the Medical Corps is too small to permit of details at the many recruiting stations, it was recommended that the medical examination of recruits at these stations be entirely done away with, and that recruits at each station be accepted conditionally on the judgment of the recruiting officer and at once sent to a depot for medical examination by a board of medical officers. The plan will probably also result not only in saving the expense of hiring civilian physicians, but in a great gain in efficiency in the improved physical character of recruits accepted.

The following table shows the number of applicants for enlistment, white and colored, examined physically during the year 1904, with the number accepted, rejected on primary examination, and declined, with ratios per thousand:

TABLE A.

	White.		Colored.	
	Number.	Ratio per 1,000 examined.	Number.	Ratio per 1,000 examined.
Examined	48,497	1,000.00	1,914	1,000.00
Accepted	31,927	658.33	1,274	665.60
Rejected on primary examination	12,483	257.40	527	275.36
Declined	4,087	84.27	113	59.04

The number of recruits, white and colored, examined for enlistment during the year was: White, 48,497; colored, 1,914; total, 50,411. Strictly speaking these figures do not represent actual recruits, all reenlistments being included. The large increase over the number examined last year was due to the expiration of the term of service of those who enlisted on the reorganization of the Army in 1901.

The ratios for men accepted was for white, 658.33; colored, 665.60 per thousand, as compared with white, 619.93, and colored, 636.50, the corresponding rates for last year. A very large proportion of recruits are rejected by recruiting officers without ever being submitted to the medical examiner, so that the actual proportion accepted of all who applied for enlistment was probably less than half of what the above figures would indicate.

In the next table is shown the nativity of recruits, of whom less than 14 per cent were of foreign birth, the largest number of foreigners being from Germany, with Ireland next. This has been the case for the past decade. The proportion of men enlisted who were born in foreign countries has not materially changed during the last five years:

TABLE B.

	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States (continental)	27,447	859.68	1,268	995.29	28,715	864.88
Germany	1,081	33.86	1	.78	1,082	32.59
Ireland	889	27.84			889	26.78
Canada	546	17.10	2	1.57	548	16.51
England	499	15.63			499	15.03
Scandinavia	425	13.31			425	12.80
Russia	244	7.64			244	7.35
Austria	242	7.58			242	7.29
Scotland	108	3.38			108	3.25
Denmark	108	3.38			108	3.25
Switzerland	66	2.07			66	1.99
Italy	63	1.97			63	1.90
France	57	1.79			57	1.72
Holland	41	1.28			41	1.23
Hungary	41	1.28			41	1.23
Spain	16	.50			16	.48
Cuba	8	.25			8	.24
Others	46	1.44	3	2.36	49	1.48
Total foreign	4,480	140.32	6	4.71	4,486	135.12
Grand total	31,927	1,000.00	1,274	1,000.00	33,201	1,000.00

This year, for the first time since the Spanish-American war, it has been practicable to compile the statistics necessary to show the interesting series of anthropometric data at various ages of the accepted recruits of the Army.

The following tables have been carefully prepared and are exceedingly interesting as showing the state of physical development of the material of which our Army is composed.

The ages of all accepted recruits, white and colored, and the proportion at each age per thousand are shown in this statement:

TABLE C.

Ages.	White.		Colored.	
	Number.	Ratio.	Number.	Ratio.
18 years and under	20	0.6	1	0.8
19 years	26	.8		
20 years	30	.9		
21 years	4,260	133.4	96	75.3
22 years	6,621	207.4	202	158.6
23 years	3,282	102.8	98	76.9
24 years	3,054	95.7	124	97.3
25 years	2,578	80.7	133	104.4
26 years	1,929	60.4	102	80.1
27 years	1,801	56.4	105	82.4
28 years	1,530	47.9	72	56.5
29 years	1,111	34.8	50	39.2
30 years	899	28.2	39	30.6
31 years	679	21.3	29	22.8
32 years	679	21.3	28	22.0
33 years	567	17.8	21	16.5
34 years	531	16.6	24	18.8
35 years	405	12.7	21	16.5
36 years	231	7.2	11	8.6
37 years	245	7.7	10	7.8
38 years	215	6.7	13	10.2
39 years	169	5.3	12	9.4
40 years and over	1,065	33.4	83	65.1
Total	31,927	1,000.0	1,274	1,000.0

It will be seen from the above tabulation that our Army is essentially an army of young men. The proportion of accepted recruits of 24 years of age and under was for white 54.2 per cent, and for colored 40.9 per cent. Of the 33,201 white and colored enlistments during the year only

46 whites and 1 negro were under 20 years of age, while the age at which the largest number of recruits was accepted was for both white and colored 22 years.

The series of tables which follow show separately for each race the heights of accepted recruits for the year and the proportion of each height per thousand; also, in absolute and proportional numbers the relation of age to height:

TABLE D.—*Number of white recruits accepted, by height.*

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
5 feet 1 inch and under	....	1	....	1	1	2	3	1	2	1	6	....
5 feet 2 inches	....	2	....	1	4	1	2	2	1	3	3	1
5 feet 3 inches	....	....	....	18	39	14	24	22	22	17	17	14
5 feet 4 inches	1	6	2	296	484	226	214	179	151	134	111	72
5 feet 5 inches	4	6	3	550	692	387	337	275	186	231	187	127
5 feet 6 inches	4	2	6	692	1,060	455	446	372	298	269	216	156
5 feet 7 inches	5	4	5	783	1,168	549	519	460	317	286	267	183
5 feet 8 inches	2	1	8	719	1,103	599	519	423	328	306	226	177
5 feet 9 inches	1	1	3	567	915	471	417	358	258	221	190	161
5 feet 10 inches	1	1	2	350	626	297	283	261	187	182	160	105
5 feet 11 inches	2	....	1	162	276	134	142	106	82	74	77	46
6 feet	....	....	....	73	164	97	87	76	67	47	39	41
6 feet 1 inch	....	....	....	36	67	29	40	30	18	17	19	19
6 feet 2 inches and over	....	2	....	12	22	21	21	13	12	13	12	9
Total	20	26	30	4,260	6,621	3,282	3,054	2,578	1,929	1,801	1,530	1,111

Height.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
5 feet 1 inch and under	....	....	....	1	....	....	....	....	....	....	1	20
5 feet 2 inches	1	....	3	1	1	1	....	....	....	....	3	30
5 feet 3 inches	3	6	3	3	4	2	1	3	2	1	11	226
5 feet 4 inches	63	51	62	36	42	34	21	14	19	14	93	2,325
5 feet 5 inches	102	84	89	68	77	65	31	42	29	21	144	3,737
5 feet 6 inches	138	113	93	90	86	72	36	36	40	34	177	4,891
5 feet 7 inches	163	116	111	102	78	67	37	43	46	24	181	5,514
5 feet 8 inches	138	118	113	102	85	52	36	45	30	35	181	5,346
5 feet 9 inches	121	65	89	69	79	45	28	32	20	18	127	4,256
5 feet 10 inches	77	64	56	42	42	41	22	18	15	8	84	2,924
5 feet 11 inches	45	33	31	30	20	16	10	7	5	9	36	1,344
6 feet	32	21	15	17	12	5	6	4	5	3	21	832
6 feet 1 inch	9	6	10	4	3	4	2	1	2	2	3	321
6 feet 2 inches and over	7	2	4	2	2	1	1	1	2	....	3	161
Total	899	679	679	567	531	405	231	245	215	169	1,065	31,927

Proportion of each height per thousand of accepted white recruits.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
5 feet 1 inch and under	....	38.5	....	0.2	0.2	0.6	1.0	0.4
5 feet 2 inches	....	76.9	....	.2	.6	.3	.6	.8
5 feet 3 inches	....	....	....	4.2	5.9	4.2	7.9	8.5
5 feet 4 inches	50.0	230.8	66.7	69.5	73.1	68.9	70.1	69.3
5 feet 5 inches	200.0	230.8	100.0	129.1	104.5	117.9	110.3	106.7
5 feet 6 inches	200.0	76.9	200.0	162.4	160.1	138.7	146.0	144.3
5 feet 7 inches	250.0	153.8	166.7	183.8	176.4	167.3	169.9	178.4
5 feet 8 inches	100.0	38.5	266.7	168.8	166.6	182.6	169.9	164.1
5 feet 9 inches	50.0	38.5	100.0	133.1	138.2	143.6	136.5	138.9
5 feet 10 inches	50.0	38.5	66.7	82.2	94.5	90.5	92.7	101.2
5 feet 11 inches	100.0	....	33.3	38.0	41.7	40.8	46.5	41.1
6 feet	....	....	....	17.1	24.8	29.6	28.5	29.5
6 feet 1 inch	....	....	....	8.4	10.1	8.8	13.1	11.6
6 feet 2 inches and over	....	76.9	....	2.8	3.3	6.4	6.9	5.0
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE D.—*Proportion of each height per thousand of accepted white recruits*—Continued.

Height.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
5 feet 1 inch and under	1.0	0.6	3.9	....	....	....	....	1.8
5 feet 2 inches	.5	1.7	2.0	0.9	1.1	....	4.4	1.8
5 feet 3 inches	11.4	9.4	11.1	12.6	3.3	8.8	4.4	5.3
5 feet 4 inches	78.3	74.4	72.6	64.8	70.1	75.1	91.3	63.5
5 feet 5 inches	96.4	128.3	122.2	114.3	113.5	123.7	131.1	119.9
5 feet 6 inches	154.5	149.4	141.2	140.4	153.5	166.4	137.0	158.7
5 feet 7 inches	164.3	158.8	174.5	164.7	181.3	170.8	163.5	179.9
5 feet 8 inches	170.0	169.9	147.7	159.3	153.5	173.8	166.4	179.9
5 feet 9 inches	133.8	122.8	124.2	144.9	134.6	95.7	131.1	121.7
5 feet 10 inches	96.9	101.1	104.6	94.5	85.6	94.3	82.5	74.1
5 feet 11 inches	42.5	41.1	50.3	41.4	50.1	48.6	45.7	52.9
6 feet	34.7	26.1	25.5	36.9	35.6	30.9	22.1	30.0
6 feet 1 inch	9.3	9.4	12.4	17.1	10.0	8.8	14.7	7.1
6 feet 2 inches and over	6.2	7.2	7.8	8.1	7.8	2.9	5.9	3.5
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Height.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
5 feet 1 inch and under	....	....	....	....	....	....	0.9	0.6
5 feet 2 inches	1.9	2.5	....	....	....	....	2.8	.9
5 feet 3 inches	7.5	4.9	4.3	12.2	9.3	5.9	10.3	7.1
5 feet 4 inches	79.1	83.9	90.9	57.1	88.4	82.8	87.3	72.8
5 feet 5 inches	145.0	160.5	134.2	171.4	134.9	124.3	135.2	117.1
5 feet 6 inches	162.0	177.8	155.8	146.9	186.0	201.2	166.2	153.2
5 feet 7 inches	146.9	165.4	160.2	175.5	214.0	142.0	170.0	172.7
5 feet 8 inches	160.1	128.4	155.8	183.7	139.5	207.1	170.0	167.4
5 feet 9 inches	148.8	111.1	121.2	130.6	93.0	106.5	119.2	133.3
5 feet 10 inches	79.1	101.2	95.2	73.5	69.8	47.3	78.9	91.6
5 feet 11 inches	37.7	39.5	43.3	28.6	23.3	53.3	33.8	42.1
6 feet	22.6	12.3	26.0	16.3	23.3	17.8	19.7	26.1
6 feet 1 inch	5.6	9.9	8.7	4.1	9.3	11.8	2.8	10.1
6 feet 2 inches and over	3.8	2.5	4.3	....	9.3	....	2.8	5.0
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE E.—*Number of colored recruits accepted, by height.*

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
5 feet 1 inch and under	......	......	......	......	......	......	......	......	......	......	......	......
5 feet 2 inches	......	......	......	......	......	......	......	......	......	......	......	......
5 feet 3 inches	......	......	......	1	2	......	......	1	1	......	......	1
5 feet 4 inches	......	......	......	7	22	6	8	5	11	9	5	6
5 feet 5 inches	......	......	......	8	25	13	16	11	19	12	6	8
5 feet 6 inches	1	....	....	22	32	18	21	20	14	16	10	5
5 feet 7 inches	......	......	......	21	40	12	18	31	20	23	15	7
5 feet 8 inches	......	......	......	12	25	16	28	22	16	14	17	11
5 feet 9 inches	......	......	......	11	23	15	20	18	6	14	9	3
5 feet 10 inches	......	......	...	8	17	9	9	12	7	6	6	7
5 feet 11 inches	......	......	......	3	10	5	2	6	6	5	3	......
6 feet	......	......	......	3	6	2	2	3	2	3	1	2
6 feet 1 inch	......	......	......	......	......	2	......	1	......	2	......	......
6 feet 2 inches and over	......	......	......	......	......	......	......	3	......	1	......	......
Total	1	......	......	96	202	98	124	133	102	105	72	50

TABLE E.—*Number of colored recruits accepted, by height*—Continued.

Height.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
5 feet 1 inch and under												
5 feet 2 inches												
5 feet 3 inches										1	2	9
5 feet 4 inches	5		1	1		1			1		5	93
5 feet 5 inches	2	7	5			3	3	2	2	3	12	157
5 feet 6 inches	5	3	5	3	4	5	3		3	2	9	201
5 feet 7 inches	6	5	5	7	6	5	4	1		1	18	245
5 feet 8 inches	10	5	3	3	8	4		6	4	2	18	224
5 feet 9 inches	6	4	3	3	3				3	2	7	150
5 feet 10 inches		3	3	2	1	1	1	1			8	101
5 feet 11 inches	2		2	1	2						2	49
6 feet		1				2				1	1	29
6 feet 1 inch	2		1								1	9
6 feet 2 inches and over	1	1		1								7
Total	39	29	28	21	24	21	11	10	13	12	83	1,274

Proportion of each height per thousand of accepted colored recruits.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
5 feet 1 inch and under								
5 feet 2 inches								
5 feet 3 inches				10.4	9.9			7.5
5 feet 4 inches				72.9	108.9	61.2	64.5	37.6
5 feet 5 inches				83.3	123.8	132.6	129.0	82.7
5 feet 6 inches	1,000.0			229.2	158.4	183.7	169.4	150.4
5 feet 7 inches				218.7	198.0	122.4	145.2	233.1
5 feet 8 inches				125.0	123.8	163.3	225.8	165.4
5 feet 9 inches				114.6	113.9	153.1	161.3	135.3
5 feet 10 inches				83.3	84.2	91.8	72.6	90.2
5 feet 11 inches				31.2	49.5	51.0	16.1	45.1
6 feet				31.2	29.7	20.4	16.1	22.6
6 feet 1 inch						20.4		7.5
6 feet 2 inches and over								22.6
Total	1,000.0			1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Height.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
5 feet 1 inch and under								
5 feet 2 inches								
5 feet 3 inches	9.8			20.0				
5 feet 4 inches	107.8	85.7	69.4	120.0	128.2		35.7	47.6
5 feet 5 inches	186.3	114.3	83.3	160.0	51.3	241.4	178.6	
5 feet 6 inches	137.3	152.4	138.9	100.0	128.2	103.4	178.6	142.9
5 feet 7 inches	196.1	219.1	208.3	140.0	153.8	172.4	178.6	333.3
5 feet 8 inches	156.9	133.3	236.1	220.0	256.4	172.4	107.1	142.9
5 feet 9 inches	58.8	133.3	125.0	60.0	153.8	137.9	107.1	142.9
5 feet 10 inches	68.6	57.1	83.3	140.0		103.4	107.1	95.2
5 feet 11 inches	58.8	47.6	41.7		51.3		71.4	47.6
6 feet	19.6	28.6	13.9	40.0		34.5		
6 feet 1 inch		19.0			51.3		35.7	
6 feet 2 inches and over		9.5			25.6	34.5		47.6
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE E.—*Proportion of each height per thousand of accepted colored recruits*—Continued.

Height.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
5 feet 1 inch and under								
5 feet 2 inches								
5 feet 3 inches						83.3	24.1	7.1
5 feet 4 inches		47.6			76.9		60.2	73.0
5 feet 5 inches		142.9	272.6	200.0	153.8	250.0	144.6	123.2
5 feet 6 inches	166.7	238.1	272.6		230.8	166.7	108.4	157.8
5 feet 7 inches	250.0	238.1	363.7	100.0		83.3	216.9	192.3
5 feet 8 inches	333.3	190.5		600.0	307.7	166.7	216.9	175.8
5 feet 9 inches	125.0				230.8	166.7	84.3	117.7
5 feet 10 inches	41.7	47.6	90.9	100.0			96.4	79.2
5 feet 11 inches	83.3						24.1	38.5
6 feet		95.2				83.3	12.0	22.8
6 feet 1 inch							12.0	7.1
6 feet 2 inches and over								5.5
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

It will be noted that the height of 17.3 per cent of approved white recruits was 5 feet 7 inches, this being the highest proportion at any one height, and almost exactly the same for the colored recruits. The proportion of white and colored recruits accepted under 5 feet 4 inches was only 0.71 per cent for each class, while for those 6 feet and over 4.1 per cent and 3.5 per cent, respectively, was recorded.

The following tables show separately for each race the weights of accepted recruits and the proportion of each weight per 1,000; also, the relation of age to weight in both absolute and proportionate numbers:

TABLE F.—*Weights of accepted white recruits.*

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
99 pounds and under												
100 to 109 pounds												
110 to 119 pounds	3	5	2	107	146	54	48	49	37	40	23	19
120 to 129 pounds	6	6	5	757	1,017	365	394	282	226	210	181	115
130 to 139 pounds	7	8	11	1,399	1,905	921	772	670	449	459	349	249
140 to 149 pounds	3	4	6	1,093	1,867	918	838	704	541	460	399	292
150 to 159 pounds	1	1	5	604	1,012	593	549	498	377	342	273	205
160 to 169 pounds		1	1	215	482	306	291	237	180	177	197	133
170 to 179 pounds		1		59	135	85	115	90	73	69	56	57
180 to 189 pounds				21	46	30	33	30	34	26	35	24
190 to 199 pounds				4	8	8	13	14	8	13	13	11
200 pounds and over				1	3	2	1	4	4	5	4	6
Total	20	26	30	4,260	6,621	3,282	3,054	2,578	1,929	1,801	1,530	1,111

Weight.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
99 pounds and under												
100 to 109 pounds												
110 to 119 pounds	22	8	12	4	9	6	2	6	7	3	29	641
120 to 129 pounds	93	73	67	55	44	40	28	19	20	13	106	4,122
130 to 139 pounds	208	161	141	131	134	84	44	62	38	37	177	8,416
140 to 149 pounds	220	174	182	149	128	96	61	45	49	32	219	8,480
150 to 159 pounds	171	124	137	110	98	71	42	53	38	27	159	5,490
160 to 169 pounds	108	68	74	57	64	52	28	23	33	27	139	2,893
170 to 179 pounds	42	40	33	33	24	30	13	17	14	13	100	1,099
180 to 189 pounds	27	18	19	15	16	13	6	11	7	6	60	477
190 to 199 pounds	5	5	8	11	6	6	4	6	6	7	39	195
200 pounds and over	3	8	6	2	8	7	3	3	3	4	37	114
Total	899	679	679	567	531	405	231	245	215	169	1,065	31,927

TABLE F.—*Proportion of each weight per thousand of accepted white recruits.*

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
99 pounds and under	....	....	....	....	....	....	....	....
100 to 109 pounds	....	....	....	....	....	....	....	....
110 to 119 pounds	150.0	192.3	66.7	25.1	22.1	16.5	15.7	19.0
120 to 129 pounds	300.0	230.8	166.7	177.7	153.6	111.2	129.0	109.4
130 to 139 pounds	350.0	307.6	366.7	328.4	287.7	280.6	252.8	259.9
140 to 149 pounds	150.0	153.8	200.0	256.6	282.0	279.7	274.4	273.1
150 to 159 pounds	50.0	38.5	166.7	141.8	152.8	180.7	179.8	193.2
160 to 169 pounds	....	38.5	33.3	50.5	72.8	93.2	95.3	91.9
170 to 179 pounds	....	38.5	....	13.8	20.4	25.9	37.7	34.9
180 to 189 pounds	....	....	....	4.9	6.9	9.1	10.8	11.6
190 to 199 pounds	....	....	....	.9	1.2	2.4	4.3	5.4
200 pounds and over	....	....	....	.2	.5	.6	.3	1.6
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
99 pounds and under	....	....	....	....	....	....	....	....
100 to 109 pounds	....	....	....	....	....	....	....	....
110 to 119 pounds	19.2	22.2	15.0	17.1	24.5	11.8	17.7	7.1
120 to 129 pounds	117.2	116.6	118.3	103.5	103.4	107.5	98.7	97.0
130 to 139 pounds	232.8	254.9	228.1	224.1	231.4	237.1	207.7	231.0
140 to 149 pounds	280.4	255.4	260.8	262.8	244.7	256.3	268.1	262.8
150 to 159 pounds	195.4	189.9	178.4	184.5	190.2	182.5	201.8	194.0
160 to 169 pounds	93.3	98.3	128.8	119.7	120.1	100.1	109.0	100.5
170 to 179 pounds	37.8	38.3	36.6	51.3	46.7	58.9	48.6	58.2
180 to 189 pounds	17.6	14.4	22.9	21.6	30.0	26.5	28.0	26.5
190 to 199 pounds	4.1	7.2	8.5	9.9	5.6	7.4	11.8	19.4
200 pounds and over	2.1	2.8	2.6	5.4	3.3	11.8	8.8	3.5
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
99 pounds and under	....	....	....	....	....	....	....	....
100 to 109 pounds	....	....	....	....	....	....	....	....
110 to 119 pounds	16.9	14.8	8.7	24.5	32.6	17.8	27.2	20.1
120 to 129 pounds	82.9	98.8	121.2	77.6	93.0	76.9	99.5	129.1
130 to 139 pounds	252.4	207.4	190.5	253.1	176.7	218.9	166.2	263.6
140 to 149 pounds	241.1	237.0	264.0	183.7	227.9	189.4	205.6	265.6
150 to 159 pounds	184.6	175.3	181.8	216.3	176.7	159.8	149.3	172.0
160 to 169 pounds	120.5	128.4	121.2	93.9	153.5	159.8	130.5	90.6
170 to 179 pounds	45.2	74.1	56.3	69.4	65.1	76.9	93.9	34.4
180 to 189 pounds	30.1	32.1	26.0	44.9	32.6	35.6	56.3	14.9
190 to 199 pounds	11.3	14.8	17.3	24.5	27.9	41.4	36.6	6.1
200 pounds and over	15.1	17.3	13.0	12.3	14.0	23.7	34.7	3.6
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE G.—*Weights of accepted colored recruits.*

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
99 pounds and under	....	....	....	....	....	....	....	....	....	....	....	....
100 to 109 pounds	....	....	....	....	....	....	....	....	....	....	....	....
110 to 119 pounds	....	....	....	....	2	1	1	1	....	....	....	....
120 to 129 pounds	1	....	....	14	23	4	6	9	12	9	6	3
130 to 139 pounds	....	....	....	32	52	21	29	23	28	15	11	12
140 to 149 pounds	....	....	....	27	58	33	37	46	23	38	20	12
150 to 159 pounds	....	....	....	15	37	25	30	25	21	20	25	8
160 to 169 pounds	....	....	....	6	18	10	15	11	14	12	6	8
170 to 179 pounds	....	....	....	2	7	2	5	8	2	4	2	5
180 to 189 pounds	....	....	....	....	4	2	1	8	2	6	2	2
190 to 199 pounds	....	....	....	....	....	....	....	2	....	1	....	....
200 pounds and over	....	....	....	....	1	....	....	....	....	....	....	....
Total	1	....	....	96	202	98	124	133	102	105	72	50

TABLE G.—*Weights of accepted colored recruits*—Continued.

Weight.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
99 pounds and under	......	....	......	......	......	......	......	......	......	......	......	......
100 to 109 pounds	......	....	......	......	......	......	......	......	......	......	......	......
110 to 119 pounds	......	....	......	......	......	1	......	......	......	......	......	6
120 to 129 pounds	1	1	2	1	......	1	1	......	2	......	5	101
130 to 139 pounds	10	5	2	2	3	5	1	2	1	1	15	270
140 to 149 pounds	5	8	7	5	6	3	5	1	3	5	19	361
150 to 159 pounds	10	8	7	6	9	5	......	4	5	1	13	274
160 to 169 pounds	8	1	5	5	2	1	2	1	2	1	11	139
170 to 179 pounds	3	4	2	1	1	2	2	......	......	2	10	64
180 to 189 pounds	2	2	......	1	1	......	......	1	......	1	3	38
190 to 199 pounds	......	....	2	......	1	3	......	......	......	......	......	9
200 pounds and over	......	....	1	......	1	......	......	1	......	1	7	12
Total	39	29	28	21	24	21	11	10	13	12	83	1,274

Proportion of each weight per thousand of accepted colored recruits.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
99 pounds and under	....	....	....	....	....	....	....	....
100 to 109 pounds	....	....	....	....	....	....	....	....
110 to 119 pounds	....	....	....	....	9.9	10.2	8.1	7.5
120 to 129 pounds	1,000.0	....	....	145.8	113.9	40.8	48.4	67.7
130 to 139 pounds	....	....	....	333.3	257.4	214.3	233.9	172.9
140 to 149 pounds	....	....	....	281.2	287.1	336.7	298.4	345.8
150 to 159 pounds	....	....	....	156.3	183.2	255.1	241.9	188.0
160 to 169 pounds	....	....	....	62.5	89.1	102.0	121.0	82.7
170 to 179 pounds	....	....	....	20.8	34.7	20.4	40.3	60.1
180 to 189 pounds	....	....	....	....	19.8	20.4	8.1	60.1
190 to 199 pounds	....	....	....	....	....	....	....	15.0
200 pounds and over	....	....	....	....	5.0	....	....	....
Total	1,000.0	....	....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
99 pounds and under	....	....	....	....	....	....	....	....
100 to 109 pounds	....	....	....	....	....	....	....	....
110 to 119 pounds	....	....	....	....	....	....	....	....
120 to 129 pounds	117.6	85.7	83.3	60.0	25.6	34.5	71.4	47.6
130 to 139 pounds	274.5	142.9	152.8	240.0	256.4	172.4	71.4	95.2
140 to 149 pounds	225.5	361.9	277.8	240.0	128.2	275.9	250.0	238.1
150 to 159 pounds	205.9	190.5	347.2	160.0	256.4	275.9	250.0	285.7
160 to 169 pounds	137.3	114.3	83.3	160.0	205.1	34.5	178.6	238.1
170 to 179 pounds	19.6	38.1	27.8	100.0	76.9	137.9	71.4	47.6
180 to 189 pounds	19.6	57.1	27.8	40.0	51.3	69.0	....	47.6
190 to 199 pounds	....	9.5	....	....	....	....	71.4	....
200 pounds and over	....	....	....	....	....	....	35.7	....
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
99 pounds and under	....	....	....	....	....	....	....	....
100 to 109 pounds	....	....	....	....	....	....	....	....
110 to 119 pounds	....	47.6	....	....	....	....	....	4.7
120 to 129 pounds	....	47.6	90.9	....	153.8	....	60.2	79.3
130 to 139 pounds	125.0	238.1	90.9	200.0	76.9	83.3	180.7	211.9
140 to 149 pounds	250.0	142.9	454.6	100.0	230.9	416.7	228.9	283.4
150 to 159 pounds	375.0	238.1	....	400.0	384.6	83.3	156.6	215.1
160 to 169 pounds	83.3	47.6	181.8	100.0	153.8	83.3	132.5	109.1
170 to 179 pounds	41.7	95.2	181.8	....	....	166.7	120.5	50.2
180 to 189 pounds	41.7	....	....	100.0	....	83.3	36.1	29.8
190 to 199 pounds	41.7	142.9	....	....	....	....	....	7.1
200 pounds and over	41.7	....	....	100.0	....	83.3	84.3	9.4
Total	1,000.0	1,000.0	1,000.0	1.000.0	1,000.0	1,000.0	1,000.0	1,000.0

The figures for the white and colored recruits at all ages are again closely assimilated, the weights of the highest proportion of accepted applicants of each class were between 140 and 149 pounds, the proportions being 26.6 per cent and 28.3 per cent for the white and colored men, respectively.

The next tables show separately for each race the chest measurements of accepted recruits and the proportion of each measurement per 1,000, also the chest measurement in relation to age in both absolute and proportionate numbers:

TABLE H.—*Chest measurements of accepted white recruits.*

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
30 inches and under	8	9	2	141	188	68	71	37	27	27	23	11
31 inches	2	3	5	421	588	225	176	145	108	92	59	60
32 inches	4	5	7	1,181	1,654	689	595	531	365	321	283	173
33 inches	3	5	6	1,249	1,280	956	798	641	477	465	367	272
34 inches	3	3	7	733	1,856	662	666	553	416	381	334	233
35 inches		1	2	344	668	419	429	369	276	260	237	158
36 inches			1	131	256	177	209	183	163	144	129	108
37 inches				45	96	63	73	79	63	72	52	51
38 inches				11	26	16	28	33	23	27	33	34
39 inches and over				4	9	7	9	7	11	12	13	11
Total	20	26	30	4,260	6,621	3,282	3,054	2,578	1,929	1,801	1,530	1,111

Chest measurement.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
30 inches and under	16	9	6	7	9	8	2	3	6	5	6	689
31 inches	33	32	26	18	26	21	9	16	8	7	36	2,116
32 inches	140	108	105	79	30	50	24	22	24	12	97	6,499
33 inches	201	143	145	120	158	66	58	43	31	28	168	7,680
34 inches	180	137	132	114	102	96	59	46	45	25	181	6,964
35 inches	156	116	124	96	79	57	28	46	26	26	144	4,061
36 inches	105	60	74	69	61	50	22	24	40	30	128	2,164
37 inches	37	33	33	29	33	30	15	22	16	20	109	971
38 inches	21	22	21	25	17	12	9	13	8	6	79	464
39 inches and over	10	19	13	10	16	15	5	10	11	10	117	319
Total	899	679	679	567	531	405	231	245	215	169	1,065	31,927

Proportion of each measurement per thousand of accepted white recruits.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
30 inches and under	400.0	346.1	66.7	33.1	28.4	20.7	23.2	14.4
31 inches	100.0	115.4	166.7	98.8	88.8	68.6	57.6	56.2
32 inches	200.0	192.3	233.3	277.2	249.8	209.9	194.8	206.0
33 inches	150.0	192.3	200.0	293.3	193.3	291.3	261.3	248.6
34 inches	150.0	115.4	233.3	172.0	280.3	201.7	218.1	214.5
35 inches		38.5	66.7	80.7	100.9	127.7	140.5	143.1
36 inches			33.3	30.7	38.7	53.9	68.4	71.0
37 inches				10.6	14.5	19.2	23.9	30.6
38 inches				2.6	3.9	4.9	9.2	12.8
39 inches and over				.9	1.4	2.1	2.9	2.7
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE H.—*Proportion of each measurement per thousand of accepted white recruits*—Continued.

Chest measurement.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
30 inches and under	14.0	15.0	15.0	9.9	17.8	13.3	8.8	12.3
31 inches	56.0	51.1	38.6	54.0	36.7	47.1	38.3	31.7
32 inches	189.2	178.2	185.0	155.7	155.7	159.0	154.6	139.3
33 inches	247.3	258.2	239.9	244.8	223.6	210.6	213.6	211.6
34 inches	215.6	211.5	218.3	209.7	200.2	201.8	194.4	201.1
35 inches	143.1	144.4	154.9	142.2	173.5	170.8	182.6	169.3
36 inches	84.5	80.0	84.3	97.2	116.8	88.4	109.0	121.7
37 inches	32.7	40.0	34.0	45.9	41.2	48.6	48.6	51.1
38 inches	11.9	15.0	21.6	30.6	23.4	32.4	30.9	44.1
39 inches and over	5.7	6.7	8.5	9.9	11.1	28.0	19.1	17.6
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Chest measurement.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
30 inches and under	16.9	19.8	8.7	12.2	27.9	29.6	5.6	21.6
31 inches	49.0	51.9	39.0	65.3	37.2	41.4	33.8	66.3
32 inches	56.5	123.5	103.9	89.8	111.6	71.0	91.1	203.6
33 inches	297.6	162.9	251.1	175.5	144.2	165.7	157.7	240.5
34 inches	192.1	237.0	255.4	187.8	209.3	147.9	170.0	218.1
35 inches	148.8	140.7	121.2	187.8	120.9	153.8	135.2	127.2
36 inches	114.9	123.5	95.2	98.0	186.1	177.5	120.2	67.8
37 inches	62.2	74.1	64.9	89.8	74.4	118.3	102.3	30.4
38 inches	32.0	29.6	39.0	53.0	37.2	35.5	74.2	14.5
39 inches and over	30.1	37.0	21.6	40.8	51.2	59.2	109.9	10.0
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE I.—*Chest measurements of accepted colored recruits.*

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
30 inches and under	1	....	......	1	3	1	1	2	1	1	......	2
31 inches	......	....	......	5	17	5	10	7	6	7	3	4
32 inches	......	....	......	28	38	14	18	22	27	13	11	3
33 inches	......	....	......	34	72	37	33	41	26	29	19	12
34 inches	......	....	......	17	41	24	35	27	21	25	19	15
35 inches	......	....	......	7	24	9	16	14	12	12	10	8
36 inches	......	....	......	3	4	7	7	10	4	9	6	4
37 inches	......	....	......	1	3	......	3	6	4	4	3	......
38 inches	......	....	......	......	......	1	1	3	......	5	......	......
39 inches and over	......	....	......	......	......	......	......	1	1	......	1	2
Total	1	....	......	96	202	98	124	133	102	105	72	50

Chest measurement.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
30 inches and under	......	....	1	1	1	1	......	......	......	......	......	17
31 inches	......	2	......	1	......	......	1	......	1	......	1	70
32 inches	4	5	3	2	1	3	2	2	2	......	10	208
33 inches	10	5	4	5	4	6	3	......	2	2	17	361
34 inches	11	6	5	5	7	4	2	4	7	4	12	291
35 inches	5	7	8	3	4	2	1	1	1	2	12	158
36 inches	6	4	2	3	2	2	2	2	......	3	16	96
37 inches	3	....	3	......	2	3	......	......	......	......	5	40
38 inches	......	....	2	1	2	......	......	......	......	......	4	19
39 inches and over	......	....	......	......	1	......	......	1	......	1	6	14
Total	39	29	28	21	24	21	11	10	13	12	83	1,274

TABLE I.—*Proportion of each measurement per thousand of accepted colored recruits.*

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
30 inches and under	1,000.0	....	....	10.4	14.9	10.2	8.1	15.0
31 inches	....	....	....	52.1	84.2	51.0	80.6	52.6
32 inches	....	....	....	291.7	188.1	142.9	145.2	165.4
33 inches	....	....	....	354.2	356.4	377.5	266.1	308.2
34 inches	....	....	....	177.1	203.0	244.9	282.3	203.0
35 inches	....	....	....	72.9	118.8	91.8	129.0	105.3
36 inches	....	....	....	31.2	19.8	71.4	56.5	75.2
37 inches	....	....	....	10.4	14.9	....	24.2	45.1
38 inches	....	....	....	....	....	10.2	8.1	22.6
39 inches and over	....	....	....	....	....	....	....	7.5
Total	1,000.0	....	....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Chest measurement.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
30 inches and under	9.8	9.5	....	40.0	....	....	35.7	47.6
31 inches	58.8	66.7	41.7	80.0	....	69.0	....	47.6
32 inches	264.7	123.8	152.8	60.0	102.6	172.4	107.1	95.2
33 inches	254.9	276.2	263.9	240.0	256.4	172.4	142.9	238.1
34 inches	205.9	238.1	263.9	300.0	282.1	206.9	178.6	238.1
35 inches	117.6	114.3	138.9	160.0	128.2	241.4	285.7	142.9
36 inches	39.2	85.7	83.3	80.0	153.8	137.9	71.4	142.9
37 inches	39.2	38.1	41.7	....	76.9	....	107.1	....
38 inches	....	47.6	....	....	....	....	71.4	47.6
39 inches and over	9.8	....	13.9	40.0	....	....	....	....
Total	1,000.0	1,000.0	1,000.0	1,000.0	1.000.0	1,000.0	1,000.0	1,000.0

Chest measurement.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
30 inches and under	41.7	47.6	....	....	....	....	....	13.3
31 inches	....	....	90.9	....	76.9	....	12.0	54.9
32 inches	41.7	142.9	181.8	200.0	153.8	....	120.5	163.3
33 inches	166.7	285.7	272.7	....	153.8	166.7	204.8	283.4
34 inches	291.7	190.5	181.8	400.0	538.5	333.3	144.6	228.4
35 inches	166.7	95.2	90.9	100.0	76.9	166.7	144.6	124.0
36 inches	83.3	95.2	181.8	200.0	....	250.0	192.8	75.3
37 inches	83.3	142.9	....	....	....	....	60.2	31.4
38 inches	83.3	....	....	....	....	....	48.2	14.9
39 inches and over	41.7	....	....	100.0	....	83.3	72.3	11.0
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

A chest measurement of 33 inches was noted among the highest proportions of both white and colored recruits at all ages accepted during the year. The proportions were 24.1 per cent and 28.3 per cent, respectively.

The following table shows the causes of rejections among white and colored candidates examined for enlistment during the year 1904, with ratios per thousand rejected:

TABLE J.

	White.		Colored.		Total.	
	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.
Venereal diseases	1,254	100.46	90	170.78	1,344	103.31
Heart disease	1,184	94.85	36	68.31	1,220	93.77
Defects of vision	1,153	92.37	26	49.33	1,179	90.62
Varicocele	893	71.54	29	55.03	922	70.87
Hernia	698	55.92	34	64.51	732	56.27
Varicose veins	502	40.22	7	13.28	509	39.12
Diseases of digestive system, except hernia	485	38.85	4	7.59	489	37.59
Under weight	454	36.37	11	20.87	465	35.75
Hemorrhoids	451	36.13	12	22.77	463	35.59
Chest development, insufficient	363	29.08	20	37.95	383	29.44

TABLE J.—Continued.

	White.		Colored.		Total.	
	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.	Number rejected.	Ratio per 1,000.
Diseases of organs of locomotion, except spinal curvature	362	29.00	17	32.26	379	29.13
Skin diseases	342	27.40	11	20.87	353	27.13
Physical debility	283	22.67	5	9.49	288	22.14
Curvature of spine	241	19.31	11	20.87	252	19.37
Diseases of genito-urinary system (non-venereal)	232	18.59	10	18.98	242	18.60
Defects of development, except as shown in detail	224	17.94	8	15.18	232	17.83
Injuries	196	15.70	7	13.28	203	15.60
Diseases of respiratory system, except tuberculosis	191	15.30	12	22.77	203	15.60
Under height	155	12.42	6	11.39	161	12.38
Defects of hearing	148	11.86	2	3.80	150	11.53
Tuberculosis	142	11.38	8	15.18	150	11.53
Flat feet	136	10.89	10	18.98	146	11.22
Diseases of the eye, except defects of vision	73	5.85	2	3.80	75	5.76
Diseases of the circulatory system, except as shown in detail	72	5.77	15	28.47	87	6.69
General diseases, except epidemic	41	3.28	....	....	41	3.15
Diseases of the nervous system, except weakness of mind	36	2.88	1	1.90	37	2.84
Weakness of mind	27	2.16	1	1.90	28	2.15
Epidemic diseases	23	1.84	....	....	23	1.77
Over weight and obesity	20	1.60	2	3.80	22	1.69
Diseases of the ear, except defects of hearing	19	1.52	....	....	19	1.46
Over height (cavalry and field artillery)	2	.16	3	5.69	5	.38
Causes not physical	2,081	166.71	127	240.99	2,208	169.72
Total	12,483	1,000.00	527	1,000.00	13,010	1,000.00

The principal causes of rejection, ratios per thousand, in the order of their importance were, for whites: defects of development, 120.08; venereal diseases, 100.46; heart disease, 94.85; defects of vision, 92.37; varicocele, 71.54; colored: venereal diseases, 170.78; defects of development, 98.68; heart disease, 68.31; hernia, 64.51; varicocele, 55.03.

Varicose veins, diseases of the digestive system, and defective hearing appeared much more common among white recruits, while venereal diseases, diseases of the circulatory system, and obesity were far more frequent in the negro.

The number of rejections for varicocele (922) was very large in both races and it is very questionable whether a large number of desirable recruits are not thus lost to the service. This affection is very common among men of the finest physique and most of them are unaware that they have the disease.

KILLED AND WOUNDED IN ACTION.

Twenty-one enlisted men were killed in action and 42 wounded. Of the 21 killed, in 13 cases the bodies were not recovered in time to determine the nature of the wound; of the remainder, 6 were killed by cutting arms and only 2 by gunshot. Of the 42 wounded, 28 were by gunshot and 14 by cutting arms; 3 died and 3 were discharged subsequently for disability, the result of the wounds. Three officers were killed in action and 6 wounded.

A.—*Killed in action by gunshot.*

Character and location of wound.	Nature of missile.			Total.
	Remington.	Slug.	Unknown.	
Thorax penetrating	....	1	1	2

B.—*Killed in action by wounds other than gunshot.*

Character and location of wound.	Nature of weapon.			Total.
	Bolo.	Borong.	Dagger.	
Neck	1			1
Thorax penetrating	1			1
Abdomen penetrating	1	1	1	3
Wound not described	1			1
Total	4	1	1	6

NOTE.—Thirteen men fell in action whose bodies were not recovered in time to determine the location of their wounds, or the weapons used.

C.—*Gunshot wounds received in battle (exclusive of killed in action).*

Character and location of wound.	Nature of missile.						Disposition.				
	Remington.	Krag.	Mauser.	Slug from lantaca.	Unknown.	Total.	Duty.	Died.	Surgeon's certificate of disability.	Remaining.	Total.
Head, flesh					1	1	1				1
Neck	1					1	1				1
Thorax, nonpenetrating	1			1	1	3	3				3
Thorax, penetrating	2	1				3	1	1		1	3
Pelvis, fracture		1				1	1				1
Shoulder, flesh	1	1				2	2				2
Arm, flesh	3		1	1		5	4	*a* 1			5
Arm, fracture	2					2				2	2
Elbow joint	1					1			1		1
Forearm, flesh			1	1		2	2				2
Forearm, fracture					1	1	1				1
Thigh, flesh	1					1	1				1
Thigh, fracture, lower third			1			1				1	1
Leg, flesh			2			2	2				2
Foot, fracture	1	1				2	1			1	2
Total	13	4	5	3	3	28	20	2	1	5	28

a Died of hemorrhage from severed axillary artery.

D.—*Wounds other than gunshot received in action (exclusive of killed in action).*

Character and location of wound.	Nature of weapon.				Disposition.				
	Bolo.	Borong.	Dagger.	Total.	Duty.	Died.	Surgeon's certificate of disability.	Remaining.	Total.
Face, fracture	1			1	1				1
Abdomen, penetrating			4	4	1	1	1	1	4
Shoulder, flesh	1			1	1				1
Forearm, flesh	2		1	3	2			1	3
Forearm, fracture	1			1			*a* 1		1
Hand, fracture	1			1				1	1
Thigh, flesh	1			1	1				1
Leg, flesh		1		1	1				1
Foot, flesh	1			1	1				1
Total	8	1	5	14	8	1	2	3	14

a Discharged on surgeon's certificate of disability for loss of forearm from bolo wound.

E.—*Surgical operations for gunshot wounds.*

Character and location of wound.	Operation.	Result.				Missile.											
		Recovered.	Died.	Remaining.	Total.	Krag.	Remington.	Revolver.	Shotgun.	Carbine.	Toy pistol.	Explosion of gun.	Explosion of cartridge.	Slug.	Fragment of bullet.	Not stated.	Total.
Skull, fracture	Semilunar incision to bone, loose fragments removed, and rough edges smoothed off with bone forceps.	....	1	....	1	....	....	1	....	....	....	....	....	....	....	....	1
Face, flesh	Enucleation of eye	1	....	....	1	....	....	....	....	....	1	....	....	....	....	....	1
Neck	Ligation of lingual artery, tracheotomy	1	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1
Do	Bullet located by X ray and removed from deep muscles of neck	1	....	....	1	....	....	1	....	....	....	....	....	....	....	....	1
Thorax, nonpenetrating	Entire charge of shot and wads removed by incision	....	....	1	1	....	....	....	....	....	....	1	....	....	....	....	1
Thorax, penetrating	Resection of 3 cm. of eighth rib, for empyema	1	....	....	1	....	1	....	....	....	....	....	....	....	....	....	1
Do	Aspiration of 2,000 c. c. of cloudy serum	1	....	....	1	....	....	1	....	....	....	....	....	....	....	....	1
Abdomen, nonpenetrating	Bullet removed by incision at lower border of sternum	1	....	....	1	....	1	....	....	....	....	....	....	....	....	....	1
Abdomen, penetrating	Laparotomy: Four perforations of the ileum and one of the bladder sutured	....	....	1	1	....	....	1	....	....	....	....	....	....	....	....	1
Do	Laparotomy: Four perforations of the small intestine closed with linear Lembert sutures; rent in mesentery sutured.	1	....	....	1	....	....	1	....	....	....	....	....	....	....	....	1
Do	Laparotomy: Resection of two portions of small intestine, 3¼ inches and 8¾ inches, respectively, one resection with Murphy button.	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Do	An incision of about 9 inches was made, connecting wounds of entrance and exit; no perforations were found.	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Do	Laparotomy and suture of perforation	....	1	....	1	....	....	1	....	....	....	....	....	....	....	....	1
Do	Laparotomy, reparative	....	1	....	1	....	....	1	....	....	....	....	....	....	....	....	1
Do	Wound of exit enlarged and packed	....	1	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Shoulder, flesh	Bullet located by X-ray; removed by incision over elbow joint	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Arm, flesh	Missile removed by incision	2	....	....	2	....	....	....	....	....	....	....	....	1	1	....	2
Arm, fracture	Amputation through neck of humerus	....	....	1	1	1	....	....	....	....	....	....	....	....	....	....	1
Do	Fragments smoothed and coaptated (2½ inches of bone shot away)	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Do	Necrosed bone removed; fragments wired	....	....	1	1	....	1	....	....	....	....	....	....	....	....	....	1
Do	Incision and removal of necrosed fragments	1	....	....	1	....	1	....	....	....	....	....	....	....	....	....	1
Forearm, fracture	Division of fibrous tissue, releasing muscles, and tenotomy for contraction of second, third, and fourth fingers.	....	....	1	1	....	....	1	....	....	....	....	....	....	....	....	1
Metacarpus, fracture	Resection of entire metacarpal of thumb	....	....	1	1	1	....	....	....	....	....	....	....	....	....	....	1
Do	Amputation of index finger, excision of corresponding metacarpal	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Finger, fracture	Amputation of finger (thumb 5, index finger 11, included)	26	....	2	28	10	3	1	12	1	....	....	....	....	....	1	28
Thigh, fracture	Osteotomy and removal of dead bone	1	....	....	1	....	1	....	....	....	....	....	....	....	....	....	1
Leg, fracture	Amputation of leg, upper third	....	....	1	1	....	....	....	1	....	....	....	....	....	....	....	1
Do	Amputation of leg, junction upper and middle thirds	1	....	....	1	....	....	....	1	....	....	....	....	....	....	....	1
Tarsus, fracture	Amputation of foot, Choparts	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Do	Incision and removal of necrosed bone from ext. cuneiform	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	1
Toe, fracture	Amputation of toe	2	....	2	4	3	....	....	1	....	....	....	....	....	....	....	4
Total		45	6	11	62	23	8	9	15	1	1	1	1	1	1	1	62

F.—*Surgical operations for bolo and dagger battle wounds.*

Character and location of wound.	Operation.	Result.				Weapon.		
		Recovered.	Died.	Remaining.	Total.	Bolo.	Dagger.	Total.
Thorax, nonpenetrating	Resection of ¾ inch from both ends of fractured ninth rib.	...	...	1	1	1	...	1
Abdomen, penetrating	Resection of cartilages and ends of eighth and ninth ribs for drainage of wound of liver.	...	1	...	1	...	1	1
Do	Laparotomy: Perforations of small intestine closed by means of Lembert and Czerny-Lembert sutures; rents in mesoperitoneum sutured.	...	1	...	1	...	1	1
Do	Laparotomy: Suture of wound head of colon	...	...	1	1	...	1	1
Do	Wound enlarged and drained	2	...	...	2	...	2	2
Forearm, flesh	Tendons sutured of flexor carpi ulnaris, palmaris longus, flexor sublimis digitorum, and flexor profundus digitorum.	...	...	1	1	1	...	1
Forearm, fracture	Amputation of forearm, middle third	1	...	...	1	1	...	1
Total		3	2	3	8	3	5	8

SURGICAL OPERATIONS.

The number and character of surgical operations performed by medical officers during the year and the results obtained by them show that the Army possesses a large proportion of surgeons of a high order of ability. A reference to the table on page 163 will give an idea of the importance of the work.

The table does not include a large number of minor operations nor those done for battle wounds and the operations performed at the United States Soldiers' Home, Washington, D. C.

Of the 44 deaths reported following operation only 2 could be attributed to the operation; one of these died of shock following operation for removal of carcinoma of neck, and the other died from the anesthetic (ether). Another case died on the table from shock, but the shock was the result of the condition, rupture of the bladder, for which the operation was done. Eleven of the deaths occurred in 143 operations for appendicitis and 6 more in 22 operations for abscess of the liver.

It is interesting to note the increasing frequency with which chloroform is used as compared with ether; the former was used 835 times with no fatality, and the latter 878 times with 1 death.

ULTIMATE RESULTS OF OPERATIONS.

With a view to determining the permanent value of operative procedures, especially those for the radical cure of hernia, a circular was issued September 30, 1904, requesting medical officers to report all cases of recurrence of hernia, or other important results following operations, which might come under their observation. In compliance with this request the following cases have been reported to the end of the year:

Recurrence of hernia after operation for radical cure		3
Six months after operation	1	
One year after operation, second recurrence	1	
Four years after operation, double hernia, double recurrence	1	
Recurrence of varicocele one year after high operation (second operation)		1
Hernia after operation for appendicitis		1
Chronic orchitis and hydrocele, result of operation for hernia		1

In course of time these reports will throw much light upon this interesting subject. As some 591 successful operations for the radical cure of hernia in officers and enlisted men have been performed by medical officers of the Army during the five years ending December 31, 1903, this makes an excellent showing as to the permanency of the operation.

SANITATION.

Public buildings and grounds.—Overcrowding, particularly of guardhouses, continues to be reported from a number of posts; this is due to the fact that both companies and garrisons are larger than they used to be, and the condition will be gradually corrected as new and enlarged buildings are completed. Notable instances of overcrowding were reported from Fort Leavenworth, Kans., where in October there were 140 prisoners in the guardhouse, each man having only 13 feet of floor space and 150 cubic feet air space, this degree of overcrowding being positively dangerous to health; and from Jefferson Barracks, Mo., where in January there were 274 recruits at post while the capacity of the barracks is only 180.

The buildings at some of the older posts are reported old and dilapidated; these posts, however, are being gradually eliminated as new construction progresses. At a number of posts complaint is made of the insanitary condition of quarters occupied by married enlisted men; in some instances these have been mere shacks erected without official sanction, and by absence of suitable arrangements for disposal of excreta and wastes threatening the health of the rest of the garrison. Construction of this sort should be absolutely forbidden, and all such structures destroyed as they become vacant.

Defective ventilation resulting in tonsillitis and other catarrhal affections was reported from Fort Keogh, Mont., Fort Niobrara, Nebr., and other posts.

Several medical officers report that the garrison of their posts has outgrown the hospital capacity, a condition which is being remedied as fast as the appropriations allow, by new or additional construction.

Drainage, sewerage, and disposal of wastes.—Drainage in 124 posts reported upon is as follows:

By surface drains	103
By combined sewers	16
By separate sewers	5

Surface drainage is generally satisfactory, but at a few posts complaint was made of insanitary pools of standing water in which mosquitoes breed. This was the case at Fort Du Pont, Del., Fort Niobrara, Nebr., Fort Screven, Ga., Fort Caswell, N. C., and other posts.

The reports from 121 posts show the following methods of disposal of excreta:

By water carriage	114
By dry-earth closets	4
By cesspools	2
By pits	1

Fort Washakie, Wyo., is the only permanent post where the pit system still survives notwithstanding efforts to get rid of it, more or less persistent, for the last twenty years. Earth closets continue in use at Forts Clark and McIntosh, Tex., Whipple Barracks, Ariz., and for the enlisted men at Fort Walla Walla, Wash. Cesspools are in use at Jackson Barracks and Fort St. Philip, La.

A combined latrine and incinerator or cremator for the destruction of excreta was erected at Fort Myer, Va., during the year and given a trial, but proved a failure.

The ultimate disposal of sewage is:

Into streams	108
Upon lowlands	4
Irrigation	2

Irrigation is employed at Fort Bayard, N. Mex., and Fort Logan, Colo. The sewage emptying into streams is first purified by the use of septic tanks at four posts—Forts Des Moines, Iowa; Oglethorpe, Ga.; Leavenworth, Kans., and Bliss, Tex. At none of these posts has the system been in operation long, but thus far it has given satisfactory results.

Other wastes are variously disposed of:

Dumped into streams or the sea	40
Burned in crematories	25
Burned otherwise	12
Dumped on ground at a distance	14
Hauled away	20
Various	13

In the maneuver camps of the year the excreta was deposited in pits which were burned out once or twice a day by placing straw, sawdust, or other combustible material in them and saturating the whole with petroleum; the results were not altogether satisfactory.

Water supply.—(*a*) Source (125 posts):

River (in whole or in part)	48
Artesian wells (in whole or in part)	25
Springs (in whole or in part)	19
Rain water, cisterns (in whole or in part)	8
Driven wells (in whole or in part)	10
Lake (in whole or in part)	7
Dug wells (in whole or in part)	8

Cisterns for rain water are still depended upon at Fort Flagler, Wash.; Rock Island Arsenal, Ill.; Fort Caswell, N. C.; Fort Moultrie, S. C.; Fort Dade, Fort De Soto, and Key West, Barracks, Fla., and Jackson Barracks, La., while dug wells are in use at Vancouver Barracks and Fort Casey, Wash.; Presidio of San Francisco, Cal.; Fort Apache, Ariz.; United States Army General Hospital, Fort Bayard, N. Mex.; Forts Bliss and McIntosh, Tex., and Fort Morgan, Ala.

(*b*) Purification:

Not purified	85
Purified	40

By general methods		22
Slow filtration	7	
Rapid filtration	7	
Sedimentation	1	
Distilled	7	
By local methods		16
Portable filters	7	
Boiled	5	
Forbes sterilizers	4	

The local or individual method of purifying water is never suitable or safe and should always be considered a temporary expedient.

Rapid filtration is in use at the following posts: Watervliet Arsenal, N. Y.; Jefferson Barracks, Mo.; Jackson Barracks, La.; Fort Howard, Md.; Fort Baker and Presidio of San Francisco, Cal., and Fort Myer, Va. This method has been found very satisfactory.

The water used for drinking is distilled at 7 posts. At Forts Clark, Brown, and Ringgold, Tex.; Morgan, Ala., and St. Philip, La., the water is obtained from the ice plant. At Fort Monroe, Va., and Fort H. G. Wright, N. Y., a special plant furnishes distilled water.

A softening plant is in use at Fort Lincoln, N. Dak., which employs the Clarke process, combined with the use of carbonate of soda, and gives excellent results.

Portable filters are in use at several posts, but are objectionable for the military service because soldiers will not give them the degree of care necessary to prevent them from becoming culture beds for bacteria.

(*c*) Quantity: Reported sufficient except at 6 posts. There has been considerable difficulty in obtaining an adequate water supply at many of the new seacoast fortifications. At 6 of such posts the potable water is still delivered by boat. Such is the method at Fort Constitution, N. H.; Fort Greble, R. I.; Fort Wood, N. Y., and Forts Flagler and Casey, Wash. At some of these posts arrangements are progressing which it is believed will result in securing a satisfactory solution of the difficulty. It is thought that distilling plants will be the most available plan at some of the isolated island posts.

(*d*) Quality: Reported satisfactory, except at 17 posts.

Clothing.—The clothing of the men, as judged from the absence of any unfavorable criticism in the sanitary reports, has been satisfactory during the year.

Habits of the men.—Under this heading reference is constantly made to the increasing prevalence of venereal diseases; this subject is discussed under that heading.

Food supply and its preparation.—The complaints under this head have been usually of temporary conditions, which were remedied promptly.

Distribution of mosquitoes.—The mosquito research was commenced rather late in the season, but may be considered approximately accurate. Some variety of mosquito at some season was reported from all posts except 25. Of the fortunate exceptions, 10 were in the State of California, 4 in the State of Washington, and 3 in Arizona.

Stegomyia fasciata, the yellow-fever mosquito, was reported from 9 posts in the United States—Forts Brown, McIntosh, Ringgold, and Sam Houston, Tex.; Barrancas and Key West Barracks, Fla.; Army and Navy General Hospital, Hot Springs, Ark.; Augusta Arsenal, Ga., and Fort Totten, N. Y.

Anopheles were reported present at 39 posts in the United States.

A large number of posts reported the varieties of mosquitoes undetermined. It is hoped to have this point definitely determined next season, as it is a matter of most importance, having a practical bearing on the local prevalence of certain important diseases and the measures to be taken for their prevention.

UNITED STATES (CONTINENTAL) EXCLUSIVE OF ALASKA.

The average mean enlisted strength of the troops serving in the United States during the year was 43,940, of which 40,819 were white and 3,121 were colored; none of the colored troops served outside the limits of the United States proper.

The discharge for disability, total loss, and constant noneffective rates, 31.04, 37.48, and 46.32, respectively, compare very favorably with the corresponding ratios for 1903, 35.44, 41.38, and 48.49, while the admission and death rates, 1,305.83 and 6.44, were slightly higher than the figures, 1,206.89 and 5.94, for last year. The increased admission rate was due to the fact that admissions this year represent all admissions, while heretofore they have represented cases. The slight increase in the death rate was due to injuries, the death figure from disease being lower than last year.

Ten of the deaths and 58 of the discharges in the United States occurred among soldiers whose commands were in the Philippines and who had been invalided home from there; deducting these deaths and discharges the revised rates would be 6.21 and 29.72, respectively. Even these figures do not show the full effect of Philippine service upon the rates in the United States, for many soldiers die and many are discharged at later periods as direct results of that service whose cases it is impossible to follow.

Disease caused the discharge for disability of 27.77 per thousand of strength of troops serving in the United States and a total loss of but 31.71 during the year, which is a decided improvement over 36.82, the corresponding figure for the previous year. The death rate dropped 0.18 per thousand, while the admission rate was slightly in excess of that for the calendar year 1903. Those constantly noneffective from disease during the year numbered 39.11 per thousand of strength.

The admission, discharge, and death rates from external causes were slightly in excess of the corresponding ratios for the previous year.

In the United States, as in the whole Army, venereal diseases led all others as a cause of admission, discharge, and noneffectiveness, the rates being 163.42, 5.03, and 9.83, all considerably higher than for 1903. Tonsillitis was second, diarrheal diseases third, bronchitis fourth, and influenza fifth. Malarial fevers have sixth place, with a rate of 49.16, as against 60.83 for 1903. As a cause of death pneumonia stood first, with a rate of 0.82, nearly twice as great as that for 1903. This increase in the death rate for pneumonia was shared by the civilian population, among whom also the disease was unusually prevalent. After pneumonia followed, in regular order, tuberculosis, rate 0.68; measles, rate 0.32; typhoid fever, rate 0.27; and alcoholism, rate 0.25.

A study of the causes of death, as exhibited in the following table, shows that 61.13 per cent of all deaths were due to disease and 38.87 per cent to external causes. Of the deaths from disease 20.80 per cent were due to pneumonia, 15.60 per cent to tuberculosis of the lungs, 8.09 per cent to measles, and 6.93 per cent to typhoid fever:

these four diseases alone, all preventable, causing over 50 per cent of the total mortality.

Of the deaths from external causes, 20 per cent were suicidal, 18.18 per cent accidental drowning, and 12.72 per cent wood-alcohol poisoning, the three causes accounting for over 50 per cent of the deaths.

The death rate for disease showed a progressive increase with the age of the soldier.

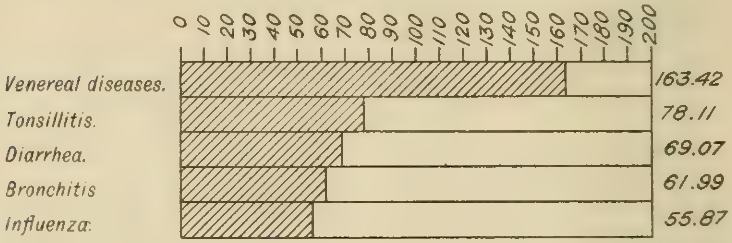
Causes of deaths.	Number of deaths.	Ratio per 1,000 of—	
		Mean strength.	Total deaths.
DISEASES.			
Pneumonia	36	0.82	208.09
Tuberculosis of the lungs	27	.61	156.06
Measles	14	.32	80.92
Typhoid fever	12	.27	69.36
Acute alcoholism	8	.18	46.24
Cerebrospinal meningitis (epidemic)	6	.14	34.68
Organic heart disease	6	.14	34.68
Appendicitis	6	.14	34.68
Cancer	5	.11	28.90
Bright's disease	5	.11	28.90
Purulent infection and septicemia	4	.09	23.12
Hepatic abscess	4	.09	23.12
Erysipelas	3	.07	17.34
Delirium tremens	3	.07	17.34
Aneurism	3	.07	17.34
Broncho-pneumonia	3	.07	17.34
General tuberculosis	2	.05	11.56
Syphilis, secondary	2	.05	11.56
Meningitis	2	.05	11.56
Cerebral congestion and hemorrhage	2	.05	11.56
Chronic dysentery	2	.05	11.56
Pleurisy	2	.05	11.56
Cirrhosis of the liver	2	.05	11.56
Scarlet fever	1	.02	5.78
Tubercular peritonitis	1	.02	5.78
Chronic articular rheumatism	1	.02	5.78
Encephalitis	1	.02	5.78
Paralysis	1	.02	5.78
Cerebral abscess	1	.02	5.78
Pericarditis	1	.02	5.78
Acute endocarditis	1	.02	5.78
Angina pectoris	1	.02	5.78
Gangrene of the lungs	1	.02	5.78
Enteritis	1	.02	5.78
Simple peritonitis	1	.02	5.78
Acute hemorrhagic pancreatitis	1	.02	5.78
Urethral fever	1	.02	5.78
Total	173	3.94	1,000.00
INJURIES.			
Gunshot wounds (suicidal 13, accidental 9, homicidal 8, by sentry 4, by policeman 1)	35	.80	318.18
Acute poisonings (suicidal 5, accidental 16; by wood alcohol 14, carbolic acid 3, narcotic 2, potassium cyanide 1, poison unknown 1)	21	.48	190.91
Fractures (of skull 11, of spine 6, other parts 3)	20	.46	181.82
Drownings (all accidental)	20	.46	181.82
Absorption of deleterious gases (all illuminating; suicidal 2, accidental 1)	3	.07	27.27
Compression of brain (by fall from horse 1, by blow on mastoid process from stone 1)	2	.05	18.18
Incised wounds (suicidal 1, homicidal 1)	2	.05	18.18
Crushing (accidental)	2	.05	18.18
Suffocation (by hanging, suicidal, 1, by snow slide, accidental, 1)	2	.05	18.18
Concussion of brain (fall from horse while drunk)	1	.02	9.09
Lacerated wound (accidental)	1	.02	9.09
Electric shock (lightning)	1	.02	9.09
Total	110	2.50	1,000.00
Grand total	283	6.44	....

Suicides, 22; homicides, 9.

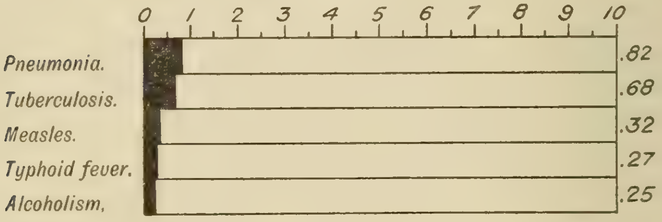
After venereal diseases as causes of discharge for disability, followed in regular order, tuberculosis, rate 2.46; insanity, rate 1.98; organic diseases of the heart, rate 1.82, and epilepsy, rate 1.23.

Charts showing the relative admission, death, discharge and noneffective rates for the five diseases causing the highest rates in the United States.

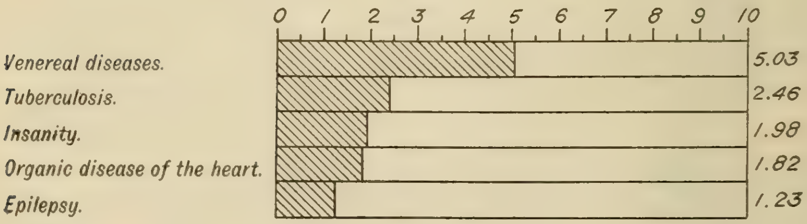
Admissions.



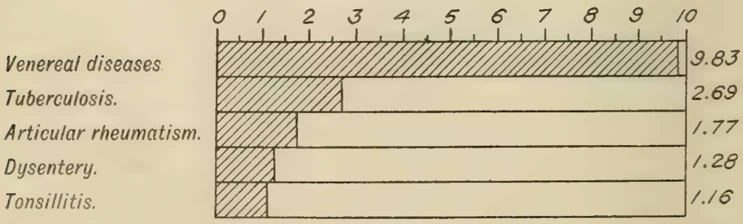
Deaths.



Discharges.



Noneffective.



TYPHOID FEVER.

There were last year 247 admissions for typhoid fever, with 12 deaths, a case mortality of about 5 per cent. The admission rate was 5.62, as against 5.82 for 1903, a gratifying decrease, especially when taken in connection with a corresponding decrease in malarial fevers and fevers undetermined. Cases of typhoid fever were reported from 52 different posts, 6 hospitals in the field, and 2 general hospitals, as shown in the following table:

Typhoid fever, military stations, United States.

Stations.	Admitted.	Days treated.	Constantly sick.	Died.
Fort Leavenworth, Kans	53	3,788	10.30	2
Camp George H. Thomas, Ga	25	1,357	3.71	......
Fort Dade, Fla	12	210	.57	......
Fort Niagara, N. Y	11	836	2.28	......
Fort Sam Houston, Tex	11	664	1.81	......
Fort Hancock, N. J	8	538	1.47	......
Washington Barracks, D. C. (general hospital)	7	774	2.11	......
Fort Myer, Va	7	406	1.11	1
Jefferson Barracks, Mo	7	391	1.07	1
Fort Howard, Md	6	320	.87	1
Fort Slocum, N. Y	5	246	.67	1
Field, Department of the Missouri	5	75	.20	......
Fort Riley, Kans	4	377	1.03	......
Madison Barracks, N. Y	4	366	1.00	......
Fort Strong, Mass	4	339	.93	......
Washington Barracks, D. C	4	255	.70	......
Fort Ethan Allen, Vt	4	228	.62	1
Fort Monroe, Va	4	203	.55	......
Field, Department of the East	4	26	.07	......
Columbus Barracks, Ohio	3	249	.68	......
Fort McPherson, Ga	3	246	.67	1
Fort Brown, Tex	3	120	.33	......
Field, Department of California	3	12	.03	......
Presidio, San Francisco, Cal. (general hospital)	2	956	2.61	1
Fort Logan H. Roots, Ark	2	153	.42	......
Fort Crook, Nebr	2	130	.35	......
Fort Huachuca, Ariz	2	104	.28	......
Fort Wadsworth, N. Y	2	103	.28	......
Fort Hamilton, N. Y	2	85	.23	......
Whipple Barracks, Ariz	2	66	.18	......
Fort Jay, N. Y	2	63	.17	1
Fort Banks, Mass	2	40	.11	......
Key West Barracks, Fla	2	39	.11	1
Field, Department of the Gulf	2	14	.04	......
Fort McDowell, Cal. (recruits and casuals)	2	6	.02	......
Presidio, San Francisco, Cal. (post)	2	4	.01	......
Fort Assinniboine, Mont	1	268	.73	......
Fort Logan, Colo	1	129	.35	......
Fort Barrancas, Fla	1	107	.29	......
Fort Moultrie, S. C	1	75	.21	......
Watervliet Arsenal, N. Y	1	75	.21	......
Fort D. A. Russell, Wyo	1	71	.20	......
Fort McDowell, Cal	1	63	.17	......
Fort Wayne, Mich	1	63	.17	......
Fort H. G. Wright, N. Y	1	63	.17	......
Fort Robinson, Nebr	1	60	.16	......
Fort Caswell, N. C	1	57	.15	......
Fort Walla Walla, Wash	1	56	.15	......
Fort Williams, Me	1	53	.14	......
Fort Douglas, Utah	1	49	.13	......
Fort Flagler, Wash	1	48	.13	......
Fort Des Moines, Iowa	1	45	.12	......
Fort Fremont, S. C	1	43	.12	......
Fort Sheridan, Ill	1	36	.10	......
Fort Casey, Wash	1	30	.08	......
Fort Preble, Me	1	19	.05	1
Fort Baker, Cal	1	16	.04	......
Fort Wingate, N. Mex	1	15	.04	......
Field, Department of the Lakes	1	2	.01	......
Field, Department of the Colorado	1	1	.01	......

Stations having days and no admissions in the year are not used in this table.

Fort Leavenworth again held the record for the largest number of cases (53), with Camp George H. Thomas second. At Leavenworth, as explained in the last annual report, the cause of the epidemic was the use of a water supply polluted by the sewage of the post. A sewage purification plant went into operation in December, 1904, and the water supply was changed January, 1905; since that time and up to May 31, 1905, not a single case of typhoid fever had occurred at Leavenworth. At Camp George H. Thomas the continued prevalence of the disease was attributed to the use of infected water from unauthorized sources. In October, 1904, the command went into permanent barracks at the new post, Fort Oglethorpe, since which time there has been a steady decrease in typhoid fever.

An outbreak of typhoid fever which occurred at Fort Dade, Fla., appears to have been a place or contact infection. Major Mason who visited the post and investigated the outbreak reported as follows:

> There had been no case of typhoid fever at this post since its establishment until December 29, 1902, when three cases were admitted to hospital, these being the first cases of an epidemic which lasted until the 25th of the following February and reached a total of 17 certain and 12 probable cases of typhoid fever, with 1 death from that cause. The strength of the command during this period was about 115 men. No other case occurred until March 11, 1904, when a schoolboy attending school in Tampa was admitted to hospital with typhoid fever; this is the only case which has ever occurred at the post except among the enlisted men, and this case was brought to the post while ill with the fever.
>
> The next case was in an enlisted man admitted to hospital October 17, 1904, and returned to duty December 5. On December 12, 3 cases were admitted, on December 13, 2 cases, on December 14, 16, and 17, 1 case each; then, after an interval of ten days, 2 more cases were admitted on December 27; after this there was another interval of thirteen days followed by the admission of 1 case January 9, the day of my arrival at post. Seven of these cases gave a positive reaction, and 2 a partial reaction to the Widal test; the rest were negative. Besides these 11 cases, 10 others were admitted during the same period with a diagnosis of dengue; the fever in these cases lasted one to two weeks, and some, if not all of them, were probably typhoid fever, although only one gave a positive reaction to the Widal test. The strength of the command during this period has been about 95 men.
>
> Except the first sergeant none of the men of the command has served in the Tropics. No anopheles mosquitoes have ever been found at post, and it is said that no case of malaria has ever originated here; 3 cases of malaria are found on the register in 1902, and none since that date. Though the symptoms of malaria were entirely absent in the present series of cases, the blood of 10 patients was examined for the malarial organism with a negative result; quinin in large doses was also used in each case without any effect on the fever.
>
> All of the men of this command, with the exception of the hospital corps and noncommissioned staff, belong to the one hundred and eleventh company coast artillery, and all the cases were among the enlisted men of this company. The company is quartered in 2 one-story barracks of 2 squad rooms each; the squad rooms are light, well ventilated, and roomy, each bed having over 100 feet of floor space and 1,000 cubic feet of air space.
>
> The water supply of the post is from two sources. The drinking water is from rain-water cisterns, covered with a roof and protected by wire gauze from access of mosquitoes; the cisterns are of wood raised some 2 feet above the ground, and with a faucet near the bottom to draw off the water. The tanks are cleaned about once a year, in the late summer. The water for all other purposes is from a series of 6 shallow wells about 9 feet deep, walled with brick, with cement coping, and tight-fitting iron cover. These wells are connected and the water pumped into an elevated tank holding 60,000 gallons. The well water is hard, brackish, and slightly sulphuretted. The use of the water for drinking is forbidden, but a number of the patients admit having used it, while others positively deny such use. The level of the ground water is 3 to 5 feet below surface and is said to vary with the rains but not with the tides; it is lowest at this season.
>
> The post has a well-constructed sewer system which discharges into the sea on the side of the island opposite the wells. All the dwellings on the island are not, however, connected with the sewer.

Living in the post are some twenty men employed in construction of buildings; these men live in shacks, have their own mess, and use very crude earth closets, most of the excreta and slops going on the ground; their mess room and kitchen are unprotected from flies, and the whole surroundings are in a very unsanitary condition; the same remark applies to the shack occupied by the hospital matron.

On the island there is also a light-house and a pilot station, the buildings of which have no sewer connection. At the north end of the island there are a number of shacks used by laborers working on the fortifications under an officer of the engineer corps; these buildings also have no sewer connection and no cistern water; they and their surroundings are in a most unsanitary condition.

The man in charge of the pump house lives near the wells and has an earth closet about 200 feet from the nearest well. It is fair, however, to state that after careful inquiry I have been unable to ascertain that there has ever been an even possible case of typhoid fever among any of the residents of the island except the enlisted men.

The only milk used at the post is of the tinned variety. No raw vegetables, except cabbage and celery brought from the north, have been used by the men at post; neither have raw oysters nor soft drinks been obtainable by them here.

The men of the command occasionally visit Tampa where there is always some typhoid fever, but none of the typhoid fever cases had visited that city for a period longer than the incubation period of that disease. The men from Fort De Soto, 1½ miles distant, living under almost exactly the same conditions, visit Tampa with equal frequency, but there has been no case of typhoid fever at that post for over two years, and for several weeks past there has been no case of any sort on sick report.

During the epidemic of typhoid fever at this post in 1902–3, squad room No. 2 of barracks No. 1, was used as a typhoid-fever ward to take the overflow from the hospital; cases occurred in all the squad rooms. It is stated that the squad room used as a typhoid fever ward was disinfected after its use as such, though from the best evidence obtainable, this disinfection was not very thorough; the other squad rooms and the beds, bedding, and clothing of the patients taken from them were not disinfected. Since June last more than half of the enlisted men of this company have been discharged, and to-day there are only 18 men at the post who were here in the outbreak of 1902–3; of these 18, 6 were ill at that time, 4 with certain and 2 with probable typhoid fever; of these 6 only 1 has been sick this time, and dengue was the diagnosis in his case; his blood was negative to the Widal test. In June some 16 recruits were received at post and in October about 40 more. Private W., the first man to develop typhoid fever, belonged to the June recruits.

Such are the facts. My conclusions from them are that the disease was contracted and spread through infected barracks and bedding. In the previous outbreak, 1902–3, all the susceptible material was exhausted; the dormitories (except that used as a fever ward) and bedding were not disinfected; in June and October a large amount of combustible material in the shape of young recruits arrived at the post; upon the advent of cold weather the barracks were kept more closed and the men stayed in them more; at this time, too, the work of tearing down and repairing inside chimneys was commenced, raising much dust in quarters. The disease once started was probably aided in its spread by the fresh infection carried from man to man on persons, bedding, and clothing.

Infection in Tampa may be excluded by the fact that a command of equal size at Fort De Soto equally exposed has had no sickness whatever; this certainly points to a local infection.

That the water was not the source of infection is indicated by the fact that this water is used by an almost equal number of civilians, many of them living under the most unsanitary conditions, and not one of them has had the disease. No one at the post, living outside of the barracks has had the disease. The ice is brought from Tampa and is used also by all other residents of the post and by the command at Fort De Soto; it is said to be made from distilled water. Milk, oysters, and uncooked vegetables may be excluded as sources of infection because none of them have been used with the exception of cabbage and celery as noted above.

Infection of food or water by dust or flies is not likely because the excreta of the men are removed by an excellent system of water carriage, closets are kept clean and flies are not at all abundant at this season.

Beds in dormitories have been carefully platted, but bed-to-bed infection has not been demonstrated; men in adjoining beds have developed typhoid fever, but nearly always on the same day; in a number of instances, however, the occurrence of cases in the same ward have been separated by the average incubation period of typhoid fever. Each dormitory has had almost exactly the same number of cases.

A rather sharp epidemic at Fort Niagara, N. Y., also appeared very much like a place infection. Of 11 cases occurring at that post in 1904, 9 were occupants of the same barrack and one more, a soldier who spent most of his time there. The garrison consisted of four companies, each company occupying a separate barrack with separate messes and the same water supply.

In view of these facts the following letter was sent to all chief surgeons:

War Department,
Office of the Surgeon-General,
Washington, May 31, 1905.

Sir: I am directed by the Surgeon-General to request that you call the attention of medical officers in your department to the necessity of giving careful attention to the details of disinfection in the effort to stamp out epidemics of typhoid fever. The evidence of barrack, company, and latrine infection is constantly accumulating. Whenever, therefore, a case of typhoid fever occurs in a barrack room, quarters, or tent, that room or tent, the latrine, bathroom, and wash room used by the patient, and everything else used by him should be regarded as infected, and all persons occupying the same room regarded as suspects. The patient having been removed, everything which has been infected should be thoroughly disinfected. All contacts should be kept under observation for the full period of incubation, during which time all their discharges should be disinfected and their blood tested by the Widal method at least twice a week.

Very respectfully,

Chas. F. Mason,
Major, Surgeon, U. S. Army.

The following tables show the prevalence of typhoid fever by age and length of service:

BY AGE.

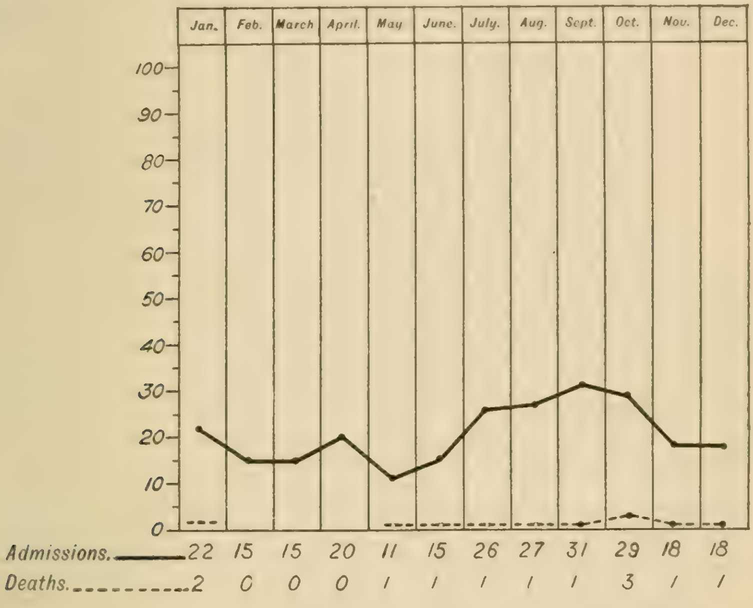
Age.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly non-effective.	Ratios per 1,000 of mean strength. Admitted.	Ratios per 1,000 of mean strength. Discharged on surgeon's certificate of disability.	Ratios per 1,000 of mean strength. Died.	Ratios per 1,000 of mean strength. Constantly non-effective.
19 years and under	73								
20 to 24 years	18,521	165	2	7	28.55	8.91	0.11	0.38	1.54
25 to 29 years	14,097	56		3	9.22	3.97		.21	.65
30 to 34 years	5,849	16		2	3.08	2.74		.34	.53
35 to 39 years	2,833	6			.69	2.12			.24
40 to 44 years	1,364	3			.53	2.20			.39
45 to 49 years	813	1			.05	1.23			.06
50 years and over	390								
Total	43,940	247	2	12	42.12	5.62	.05	.27	.96

BY LENGTH OF SERVICE.

Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly non-effective.	Ratios per 1,000 of mean strength. Admitted.	Ratios per 1,000 of mean strength. Discharged on surgeon's certificate of disability.	Ratios per 1,000 of mean strength. Died.	Ratios per 1,000 of mean strength. Constantly non-effective.
Under 1 year	11,689	127	1	2	21.66	10.86	0.09	0.17	1.85
1 to 2 years	6,205	35	1	4	7.11	5.64	.16	.64	1.15
2 to 3 years	6,608	39		3	6.35	5.90		.45	.96
3 to 4 years	4,242	14		1	2.46	3.30		.24	.58
4 to 5 years	2,977	9			1.77	3.02			.60
5 to 10 years	7,848	13		1	1.61	1.66		.13	.21
10 years and over	4,371	10		1	1.16	2.29		.23	.27
Total	43,940	247	2	12	42.12	5.62	.05	.27	.96

Over two-thirds of the admissions occurred in men under 25 years of age; more than one-half in soldiers of less than one year of service, and over 81 per cent in men in their first enlistment.

Chart showing prevalence of typhoid fever in the United States (continental, exclusive of Alaska) by months.



The smallest number of admissions occurred in May, from which time there was a gradual increase until the maximum was reached in September; the largest number of deaths occurred in October.

The unabridged report of the Army Board on the "Origin and Spread of Typhoid Fever in United States Military Camps During the Spanish War of 1898" was published and its distribution begun about the end of the year. The report is one of the most valuable contributions to the epidemiology of that disease that has ever appeared.

UNDETERMINED FEVERS.

Under the heading of fevers undetermined were included all those fevers the nature of which was not indicated by the diagnosis. There were 275 (rate 6.26) of such cases under 38 different diagnoses, by far the greater number, however, being included under "ephemeral fever," "febricula," and "simple continued fever," with various modifications.

Of the 275 cases, 14 had a duration of one day or less; 211, two days to a week; 27, eight days to two weeks; 20, fifteen days to three weeks, and 3 over three weeks.

This class of diseases should always be considered in connection with typhoid fever, many cases of which it no doubt includes. This year there was a gratifying reduction in the number of cases included in this group and every effort should be made to reduce the number to still smaller proportions.

MALARIAL DISEASES.

The next table exhibits in like manner the figures for malarial diseases:

	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
Malarial intermittent fever:												
Year 1904	1,852	58	1,910							33.10	1.07	34.17
Year 1903	2,045	96	2,141									38.41
Years 1899–1903			18,805									
Malarial remittent or continued fever:												
Year 1904	166	7	173							7.23	.54	7.77
Year 1903	311	19	330									14.89
Years 1899–1903			2,501			1			3			
Pernicious malarial fever:												
Year 1904	1		1							.11		.11
Year 1903	3		3				2		2			.50
Years 1899–1903			28						7			
Malarial cachexia:												
Year 1904	75	1	76							5.67	.09	5.76
Year 1903	93	4	97	4	1	5						12.09
Years 1899–1903			1,030			101			5			
Total malarial diseases:												
Year 1904	2,094	66	2,160							46.10	1.70	47.80
Year 1903	2,452	119	2,571	4	1	5	2		2			65.90
Years 1899–1903			22,364			102			15			

	Ratios per 1,000 of mean strength.											
	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
Malarial intermittent fever:												
Year 1904	45.37	18.58	43.47							0.81	0.34	0.78
Year 1903	52.33	30.16	50.66									.91
Years 1899–1903			121.00									
Malarial remittent or continued fever:												
Year 1904	4.07	2.24	3.94							.18	.17	.18
Year 1903	7.96	5.97	7.81									.35
Years 1899–1903			16.09			0.006			0.02			
Pernicious malarial fever:												
Year 1904	.02		.02							.003		.003
Year 1903	.08		.07				0.05		.05			.01
Years 1899–1903			.18						.04			
Malarial cachexia:												
Year 1904	1.84	.32	1.73							.14	.03	.13
Year 1903	2.38	1.26	2.30	0.10	0.31	.12						.29
Years 1899–1903			6.63			.65			.03			
Total malarial diseases:												
Year 1904	51.30	21.15	49.16							1.13	.54	1.09
Year 1903	62.75	37.39	60.83	.10	.31	.12	.05		.05			1.56
Years 1899–1903			143.90			.66			.10			

Here will be noted a very gratifying improvement in all the figures over those for last year and for the quinquennial period, an improvement, the direct result of the energetic and intelligent efforts of medical officers in the direction of prevention.

The following table exhibits the improvement which has occurred at five of the more malarial posts since the period before the Spanish-American war and as compared with 1903:

Post.	Years.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Noneffective (days).	Ratios per 1,000 of mean strength.			
							Admitted.	Discharged on surgeon's certificate of disability.	Died.	Noneffective.
West Point, N. Y	1897	381	90			367	236.22			2.64
	1903	529	22			104	41.59			.54
	1904	466	6			82	12.88			.48
Fort Wadsworth, N. Y	1897	194	28			156	144.33			2.20
	1903	375	10			93	26.67			.68
	1904	478	10			109	20.92			.62
Washington Barracks, D. C	1897	295	170			790	576.27			7.34
	1903	270	46			226	170.37			2.29
	1904	304	31			213	101.97			1.91
Fort Myer, Va	1897	281	151			949	537.37			9.25
	1903	573	34		1	276	59.33		1.75	1.32
	1904	592	18			219	30.41			1.01
Fort Monroe, Va	1897	551	70			403	127.04			2.00
	1903	953	44			528	46.17			1.52
	1904	860	9			111	10.47			.35
United States	1897	25,417	2,005	1	1	15,162	78.88	0.04	.04	1.63
	1903	42,264	2,571	5	2	24,053	60.84	.12	.05	1.56
	1904	43,940	2,160			17,496	49.15			1.09

In December Capt. J. H. Ford, assistant surgeon, U. S. Army, in a paper on "The antitoxin treatment of tertian malarial infections," reported that by inoculating rabbits with malaria, either by subjecting them to the bites of infected anopheles or by the intravenous injection of human blood in which the plasmodium malariae had been found, an antitoxin was developed in the rabbit's blood which possessed curative and immunizing powers. The experiments on which he based this conclusion are not, however, convincing nor conclusive.

ERUPTIVE FEVERS.

Of the eruptive fevers, measles showed a large increase—17.98 for 1904 as against 9.89 for 1903; smallpox also showed a slight increase, 0.32 against 0.28; there was no death from the latter disease.

DIARRHEAL DISEASES.

In October Musgrave and Clegg, of Manila, published a paper on Amebas, in which, while not denying that there may be pathogenic and nonpathogenic amebas, they contend that such a distinction has never been proven and that in the Tropics at least the presence of amebas in the stools is an indication for treatment.

In the annual report of the United States Army General Hospital, Presidio of San Francisco, Cal., Assistant Surgeon Craig, the pathologist of the hospital, gives the result of his extended researches upon this subject. His conclusions are as follows:

1. The intestine of man may be infected with two varieties of amebas, one pathogenic (*Entameba dysenteriæ*) and the other nonpathogenic (*Entameba coli*).

2. That *Entameba coli*, the nonpathogenic variety, is found in 65 per cent of the healthy individuals studied, and in 50 per cent of the individuals suffering from diseases other than dysentery, if a saline cathartic has been administered.

3. That these organisms can be easily distinguished in both fresh and stained specimens.

4. That they differ widely in their method of reproduction, and that this is the most important method of distinguishing them.

5. That *Entameba dysenteriæ*, whether fed in milk or injected through the rectum, produces in kittens the typical lesions of amebic dysentery as observed in man.

6. That in kittens *Entameba coli*, whether fed in milk or injected through the rectum, is absolutely harmless.

7. That neither feeding experiments nor rectal injections of fecal material or the bacteria occurring in such material produce any of the lesions of amebic dysentery unless *Entameba dysenteriæ* is present.

LEPROSY.

The case of leprosy at Fort Screven, Ga., the progress of which has been noted in previous reports, remained practically unchanged at the end of the year. The patient claims that he feels perfectly well, but a few nodules in the skin, and ulceration in the nose show that the disease persists. X-ray treatment was discontinued November 25, 1904. Injections of leprolin were begun November 28 and continued until December 16, when the sixth injection was given; no permanent effect upon the lesions was noted as a result of the injections.

BERIBERI.

A report by Asst. Surg. L. P. Williamson, U. S. Army, upon an outbreak of beriberi among the Filipinos at the Louisiana Purchase Exposition is interesting as being the only epidemic of this disease which has been reported in this country. There were 59 cases, with 4 deaths, among the Filipinos. No other people were affected.

The points of interest were the entire escape of 450 Filipino scouts, who were living in a model camp under the best sanitary conditions, and of 38 other Filipinos whose sanitary surroundings were good, while all the cases occurred among the remaining 788 natives, who were for some time crowded into one small building under conditions of filth, bad ventilation, and extreme overcrowding. There were in this building twelve bunks for as many people in each room 10 by 12 feet.

After the overcrowding and other unsanitary conditions were removed the disease ceased.

Food as a factor could be excluded, because all the Filipinos—those who escaped entirely, like the scouts, and those severely affected—had practically the same diet and a liberal one. A good quality of Louisiana rice was used by all.

The first case of beriberi was found among the Moros when they arrived April 30, some five weeks after leaving the Philippines. The next day 2 cases occurred among the Visayans, who had been on the ground about five weeks and absent from the Philippines about ten weeks.

For a long time there were intervals of ten days to three weeks between the development of successive cases or groups of cases, after which new cases developed almost daily.

There was strong evidence of infection of the overcrowded building referred to, inasmuch as only those natives who had lived in it contracted the disease, while nearly 500 others who had never lived there remained well. Further, the constabulary who lived in the building throughout their stay remained infected until the end, while among the natives who were removed to their own villages the epidemic soon ceased.

EPIDEMIC CEREBROSPINAL MENINGITIS.

Eleven cases of epidemic cerebrospinal meningitis were reported with 6 deaths, 2 at Fort Slocum and 1 each at Forts Bliss, Apache, Ethan Allen, and Myer.

SPOTTED FEVER.

On July 25 Asst. Surg. P. M. Ashburn, Fort Missoula, Mont., rendered an interesting report upon the so-called *Piroplasmosis hominis*, "tick fever", or "spotted fever" of that vicinity. Recent investigations by other physicians had seemed to show that this disease was caused by a protozoan organism resembling *Piroplasma bigeminum* constantly found in the blood of sufferers and transmitted from the gopher to the human being by means of the bite of a tick. Doctor Ashburn's work, extending over some six months and including the study of some 10 cases, many hours being devoted to the microscopic examination of the blood of patients and gophers, led him to the conclusion that no protozoan organism occurs in the blood of the patients, and that the disease has no connection with gophers or ticks. He further concludes that the disease is not cerebrospinal meningitis or typhus, both of which it resembles, especially the latter, and that its true nature is unknown.

YELLOW FEVER; MALTA FEVER.

There was 1 case of yellow fever at Fort Brown, Tex., and 3 admissions, representing 2 cases of malta fever, at Benicia Barracks and the U. S. Army General Hospital, Presidio of San Francisco, Cal.

TUBERCULOSIS.

During the year 1904 there were 200 admissions for all forms of tuberculosis, equivalent to an admission ratio of 4.55 per thousand, 30 deaths, equal to a rate of 0.68, and 108 discharges for disability, with a rate of 2.46. The admission rate was slightly in excess of that for 1903, 4.20, but the other rates were considerably less than for 1903, 0.86 and 4.10, respectively. The principal cause of the increased proportion of admissions was the fact that all admissions were counted this year, while last year admissions represented cases; the few discharges were due to the fact that cases are now retained at Fort Bayard much longer than formerly, before discharge, while the diminished death rate represents the net gain from the more prolonged treatment.

A study of the tuberculosis figures as shown in the following tables reveals the facts that the highest admission rates occurred in soldiers between the ages of 25 and 29 years and that over three-fourths of all admissions were in men under 30 years. That more than one-fourth of all the admissions were in men of less than one year's service and more than one-half in the first enlistment indicates that sufficient care is not exercised in excluding this disease in recruits.

BY LENGTH OF SERVICE.

Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	11,689	52	25	8	31.48	4.45	2.14	0.68	2.69
1 to 2 years	6,205	23	15	4	10.15	3.71	2.42	.64	1.64
2 to 3 years	6,608	35	26	2	24.62	5.30	3.93	.30	3.73
3 to 4 years	4,242	26	11	3	15.85	6.13	2.59	.71	3.74
4 to 5 years	2,977	16	9	1	10.45	5.37	3.02	.34	3.51
5 to 10 years	7,848	30	16	8	17.96	3.82	2.04	1.02	2.29
10 years and over	4,371	18	6	4	7.59	4.12	1.37	.92	1.74
Total	43,940	200	108	30	118.10	4.55	2.46	.68	2.69

NOTE.—Includes all forms of tuberculosis. The 200 admissions represent only 189 cases.

BY AGE.

Age.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under	73	....	....	......	....	....	....	......	....
20 to 24 years	18,521	86	46	14	50.96	4.64	2.48	0.76	2.75
25 to 29 years	14,097	71	33	11	39.01	5.04	2.34	.78	2.77
30 to 34 years	5,849	26	15	3	16.42	4.45	2.56	.51	2.81
35 to 39 years	2,833	8	11	1	6.79	2.82	3.88	.35	2.40
40 to 44 years	1,364	7	2	......	2.19	5.13	1.47	......	1.60
45 to 49 years	813	2	....	......	1.32	2.46	....	......	1.62
50 years and over	390	....	1	1	1.41	....	2.56	2.56	3.63
Total	43,940	200	108	30	118.10	4.55	2.46	.68	2.69

VENEREAL DISEASES.

The following table shows the prevalence of the venereal diseases as compared with last year and the quinquennial period since the Spanish-American war:

	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
Gonorrhea:												
Year 1904	4,433	271	4,704	45	8	53	......	....	......	236.40	11.10	247.49
Year 1903	3,334	220	3,554	88	3	91	......	....	......	......	......	223.03
Years 1899-1903	......	......	15,361	......	......	254	......	....	2	......	......	......
Chancroids:												
Year 1904	1,132	94	1,226	3	......	3	......	....	......	71.16	5.14	76.31
Year 1903	1,084	104	1,188	......	......	......	......	....	......	......	......	78.73
Years 1899-1903	......	......	4,336	......	......	15	......	....	......	......	......	......
Syphilis:												
Year 1904	1,208	43	1,251	160	5	165	2	....	2	105.52	2.70	108.22
Year 1903	956	43	999	199	8	207	3	....	3	......	......	113.00
Years 1899-1903	......	......	3,196	......	......	659	......	....	6	......	......	......
Total venereal:												
Year 1904	6,773	408	7,181	208	13	221	2	....	2	413.09	18.94	432.03
Year 1903	5,374	367	5,741	287	11	298	3	....	3	......	......	414.76
Years 1899-1903	......	......	22,893	......	......	928	......	....	6	......	......	......

Ratios per 1,000 of mean strength.

	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
Gonorrhea:												
Year 1904	108.60	86.83	107.05	1.10	2.56	1.21	......	....	......	5.79	3.56	5.63
Year 1903	85.31	69.12	84.09	2.25	.94	2.15	......	....	......	......	......	5.28
Years 1899-1903	......	......	98.84	......	......	1.63	......	....	0.01	......	......	......
Chancroids:												
Year 1904	27.73	30.12	27.90	.07	......	.07	......	....	......	1.74	1.65	1.74
Year 1903	27.74	32.67	28.11	......	......	......	......	....	......	......	......	1.86
Years 1899-1903	......	......	27.90	......	......	.10	......	....	......	......	......	......
Syphilis:												
Year 1904	29.59	13.78	28.47	3.92	1.60	3.75	0.05	....	.05	2.59	.86	2.46
Year 1903	24.46	13.51	23.64	5.09	2.51	4.90	.08	....	.07	......	......	2.67
Years 1899-1903	......	......	20.56	......	......	4.24	......	....	.04	......	......	......
Total venereal:												
Year 1904	165.93	130.73	163.43	5.10	4.17	5.02	.05	....	.05	10.12	6.07	9.83
Year 1903	137.51	115.30	135.84	7.34	3.46	7.05	.08	....	.07	......	......	9.81
Years 1899-1903	......	......	147.30	......	......	5.97	......	....	.04	......	......	......

It will be seen that the prevalence of these diseases is steadily increasing, both the admission and noneffective rates being higher than for the last year, though the death and discharge ratios were slightly lower.

ALCOHOLISM.

Alcoholism showed a slight decrease over last year, the admission rates being: 1904, 25.42; 1903, 26.72.

INSANITY.

There was a decided increase in insanity, the proportion being 1.71, against 1.02 for 1903. This increase, however, was not incident to service. Of the 88 soldiers discharged for insanity in the whole Army the disease was noted as having been contracted before enlistment in 22, and probably so contracted in 11 more; 8 soldiers were discharged as insane within three months of enlistment.

PNEUMONIA.

Pneumonia was unusually prevalent and fatal. There were 236 cases and 36 deaths, giving ratios of 5.37 and 0.82 per thousand of strength, compared with 3.69 and 0.43 for 1903.

The distribution of the disease is shown in the following tables:

Department.	Admissions.	Deaths.
Department of the East	67	7
Department of California	42	6
Department of the Missouri	40	8
Department of Dakota	25	3
Department of the Lakes	23	2
Department of the Colorado	21	8
Department of Texas	9	1
Department of the Gulf	6	0
Department of the Columbia	3	1
Total	236	36

Post.	Admissions.	Deaths.
Fort Leavenworth, Kans	22	3
Fort Assinniboine, Mont	13	2
Presidio of San Francisco, Cal.	13	....
Columbus Barracks, Ohio	13	1
Fort Ethan Allen, Vt	11	1
Fort Sheridan, Ill	10	1
Depot of recruits and casuals, Fort McDowell, Cal	9	....
Madison Barracks, N. Y	8	....
Fort Wadsworth, N. Y	7	1
Fort Robinson, Nebr	6	2
Fort Douglas, Utah	6	1
Fort Slocum, N. Y	6	1
Presidio of Monterey, Cal	5	....
Fort Logan, Colo	4	4
Fort D. A. Russell, Wyo	4	2
West Point, N. Y	4	2
Fort Hamilton, N. Y	4	....
Field, Department of California	4	....
Fort Reno, Okla	4	....
Fort Keogh, Mont	4	....
Fort Myer, Va	4	....
Plattsburg Barracks, N. Y	4	....
G. H. Presidio of San Francisco, Cal	3	4
Fort Miley, Cal	3	2
Fort Missoula, Mont	3	1
Jefferson Barracks, Mo	3	1
Whipple Barracks, Ariz	3	....
Fort McDowell, Cal	3	....
Fort Hancock, N. J	3	....
Field, Department of the Colorado	2	2
Fort Monroe, Va	2	1
Fort Duchesne, Utah	2	1
Fort McPherson, Ga	2	....
Fort Baker, Cal	2	....
Vancouver Barracks, Wash	2	....
Fort McKinley, Me	2	....
Fort Huachuca, Ariz	2	....
Fort Sam Houston, Tex	2	....
Fort Niobrara, Nebr	2	....
Jackson Barracks, La	1	1
Washington Barracks, D. C	1	1
Fort Stevens, Oreg	1	1
Fort Caswell, N. C	1	....
Fort Fremont, S. C	1	....
Camp Geo. H. Thomas, Ga	1	....
Field, Department of the Gulf.	1	....
Fort Adams, R. I	1	....
Allegheny Arsenal, Pa	1	....
Fort H. G. Wright, N. Y	1	....
Fort Howard, Md	1	....
Fort McHenry, Md	1	....
Fort Niagara, N. Y	1	....
Fort Preble, Me	1	....
Fort Rodman, Mass	1	....
Fort Schuyler, N. Y	1	....
Fort Flagler, Wash	1	....
Fort Grant, Ariz	1	....
Fort Brown, Tex	1	....
Fort Clark, Tex	1	....
Fort Lincoln, N. Dak	1	....
Fort Snelling, Minn	1	....
Fort Yellowstone, Wyo	1	....
Fort Crook, Nebr	1	....
Fort Mackenzie, Wyo	1	....
Fort Meade, S. Dak	1	....
Fort Riley, Kans	1	....
Fort Warren, Mass	1	....
Fort Washington, Md	1	....
Field, Department of the Missouri	1	....
Total	236	36

The highest case mortality was noted at posts in the States of Colorado, 100 per cent (6 cases, 6 deaths); Wyoming, 50 per cent (4 cases, 2 deaths); Utah, 25 per cent (8 cases, 2 deaths), and Nebraska, 22 per cent (9 cases, 2 deaths). In the Department of the Gulf there were 6 cases with no death, and in the Department of Texas, 9 cases with 1 death.

INTESTINAL PARASITES.

In connection with the report last year of the surgeon at Fort Porter, N. Y., Captain Hallock, upon the prevalence of intestinal worms among the men of a battalion of the First Infantry which had recently returned from service in Samar, Philippine Islands, the following extracts are published from a supplementary report by that officer dated July 30, 1904:

> The command consisted of the Third Battalion of the First Infantry and returned to the States from the Philippines in May, 1903. While in the islands they were stationed at various points in the island of Samar.
>
> As many of the patients admitted to hospital for all causes were found to harbor parasites, I thought it would be of interest to examine the entire command, and the figures below show the result of this work and include only those who have served in the islands. Nearly all of the men were on duty and had no symptoms whatever. A few had slight disturbances of digestion and irregularity of the bowels, and some of the hook-worm cases had a little anemia, but not enough to give marked symptoms or to incapacitate them for duty.
>
> No parasites were found in men who had not served outside of the United States. A number of the men were discharged by expiration of term of enlistment before the examinations were begun.
>
> In all cases reported as positive the ova or parasites were demonstrated at least three times on different days. These repeated examinations were made to avoid the possibility of error, for the men were doing duty and brought their stools to the hospital, and occasionally the names were misplaced or lost. Cases reported as negative were examined on three days, and at least a dozen slides made in all.

	Company I.		Company K.		Company L.		Company M.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Men examined	54		30		30		40	
Trichocephalus dispar	15	27.77	11	36.66	10	33.32	9	20.45
Uncinaria duodenalis	6	11.12	1	3.34		3.34	6	13.63
Tænia nana	1	1.85						
Ascaris lumbricoides	1	1.85					1	2.28
Trichocephalus dispar and Uncinaria duodenalis	14	25.93	3	10.00	6	20.00	10	22.72
Trichocephalus dispar and Ascaris lumbricoides	1	1.85			1	3.34		
Trichocephalus dispar, Uncinaria duodenalis, and Ascaris lumbricoides	1	1.85	1	3.34				
Trichocephalus dispar and Tænia nana	1	1.85						
Tænia nana and Uncinaria duodenalis							1	2.28
Negative	14	25.93	14	46.66	12	40.00	17	38.64
Number of men with parasites	40	74.07	16	53.34	18	60.00	27	61.36
Number of without parasites	14	25.93	14	46.66	12	40.00	17	38.64

Of the 158 men in the battalion 101, or 63.92 per cent, harbored parasites.

The following are the blood counts in three of the more marked cases:

	Case I—Diagnosis: Tænia nana.	Case II—Diagnosis: Uncinaria duodenalis.	Case III—Diagnosis: Trichocephalus dispar.
	Per cent.	*Per cent.*	*Per cent.*
Polymorphonuclear neutrophiles	73.33	55.55	74.28
Lymphocytes, large and small	24.61	36.11	17.46
Eosinophiles	1.53	8.33	8.25

I have been unable to form any definite opinion as to the source of the infections One would naturally think of the drinking water, but the percentage of men infected in the different companies varies little, and they were stationed at many points in Samar and had many different sources of water supply.

It is well known that the Chinamen who cultivate truck gardens in the Philippine Islands collect the night soil and after mixing it with water spread it on the ground as a fertilizer. In connection with Loose's experiments with the *Ankylostoma duodenalis*, it is interesting to note that no history of ground itch could be obtained nor did the men go barefoot.

The hook worms were, as a rule, killed by thymol, but the effect was not satisfactory with less than 6 grams of the drug. This was habitually given in three doses of 2 grams each at intervals of two hours and followed by 45 grams of Epsom salts or castor oil. The diet for twenty-four hours preceding the anthelmintic consisted of strained soup only, and a saline was given about three hours before the first dose of thymol. Occasionally it was necessary to repeat the treatment after an interval of a week or ten days.

Male fern was efficient against the dwarf tapeworm, but two of the cases which were apparently cured were found to have the parasites after two months, although they were present in smaller numbers.

The round worms were all, as a rule, promptly expelled by santonin. One case, however, required 0.713 gram, and there was no toxic symptom from this dose. The drug was from a new supply and furnished by a reliable firm. In the preceding cases, with the old supply, 0.324 gram was always efficient.

I have failed to dislodge the trichocephalus. The anthelmintics which were efficient against the other worms had no effect. Colon flushes of strong saline solution, quinine, and enemata containing turpentine were also without effect. The number of ova in these cases indicated but few worms, and I was unable to detect any symptom due to their presence.

LIVER ABSCESS.

There were 20 cases of liver abscess, with 4 deaths.

EXTERNAL CAUSES.

There were 20 cases of poisoning by methyl alcohol, with 14 deaths, and 1 discharge for amblyopia. Of these cases 7 were at Fort Terry and 2 each at Forts H. G. Wright and Wadsworth, the remainder distributed among 7 posts. In 13 of the cases bay rum was noted as the poison taken as an intoxicant.

INFLUENCE OF STATION.

Excluding injuries, venereal disease, and alcoholism, the Department of the Colorado had the highest admission and death rates, while the Department of the Lakes had the highest discharge for disability, total loss, and constantly noneffective ratios.

The Department of the Columbia had the lowest admission rate, while for discharge for disability, deaths, total losses, and noneffective figures, the Department of California had the best record.

TABLE I.

ADMISSIONS, LOSSES, AND NONEFFECTIVENESS, UNITED STATES, BY DEPARTMENTS.

Absolute numbers.

		Mean strength.	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.			
											From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
			From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.
Department of the East (all white)		12,937	16,868	10,859	273	205	72	30	345	235	500.11	385.45	279.41	214.70
Department of the Gulf (all white)		3,482	5,014	3,181	54	28	14	6	68	34	147.58	122.53	82.60	69.01
Department of the Lakes (all white)		2,523	3,578	2,401	90	68	20	9	110	77	118.66	93.80	77.34	25.39
Department of the Missouri	white	6,405	8,907	6,123	201	138	39	18	240	156	244.14	183.86	154.16	118.91
	colored	1,437	1,815	1,108	31	23	12	9	43	32	43.62	26.63	26.51	17.39
	total	7,842	10,722	7,231	232	161	51	27	283	188	287.76	210.48	180.66	136.29
Department of Dakota	white	1,844	2,320	1,445	70	35	10	3	80	38	78.74	66.85	42.22	36.01
	colored	769	928	620	13	10	5	4	18	14	23.21	19.92	14.96	13.35
	total	2,613	3,248	2,065	83	45	15	7	98	52	101.95	86.77	57.18	49.36
Department of Texas	white	2,775	3,814	2,291	62	42	14	5	76	47	117.54	91.08	63.38	49.14
	colored	258	313	177	1	1	....	....	1	1	10.65	6.65	4.80	3.08
	total	3,033	4,127	2,468	63	43	14	5	77	48	128.19	97.73	68.18	52.21
Department of the Colorado (all white)		2,122	3,360	2,288	59	39	23	18	82	57	97.88	77.53	55.13	44.69
Department of California	white	5,557	6,799	4,779	53	35	15	5	68	40	144.88	91.46	86.06	55.47
	colored	414	430	248	3	1	2	1	5	2	10.08	5.02	4.71	2.55
	total	5,971	7,229	5,027	56	36	17	6	73	42	154.96	96.47	90.78	58.02
Department of the Columbia, excluding Alaska	white	2,708	2,502	1,647	49	42	5	2	54	44	85.42	71.82	51.60	43.81
	colored	243	181	102	3	2	1	1	4	3	7.70	6.29	3.02	2.65
	total	2,951	2,683	1,749	52	44	6	3	58	47	93.12	78.11	54.62	46.46
General hospitals in United States, white and colored		466	549	404	402	323	51	49	453	372	401.80	330.58	403.40	329.63
United States (continental), excluding Alaska	white	40,819	53,707	35,515	1,306	949	258	140	1,564	1,089	1,923.87	1,571.89	1,206.54	1,006.83
	colored	3,121	3,671	2,258	58	43	25	20	83	63	111.15	80.40	67.21	52.23
	total	43,940	57,378	37,773	1,364	992	283	160	1,647	1,152	2,035.02	1,652.28	1,273.75	1,059.06

Proportional numbers.

		Ratios per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes		Excluding injuries, venereal diseases, and alcoholism.					
		From al causes.	Excluding injuries, venereal diseases, and alcoholism.	From all cause	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Department of the East (all white)		1,303.86	839.38	21.10	15.85	5.57	2.32	26.67	18.17	38.66	29.79	21.60	16.60	11.1	10.9	7.9	9.7
Department of the Gulf (all white)		1,139.98	913.56	15.51	8.01	4.02	1.72	19.53	9.76	42.38	35.19	23.73	19.82	15.5	10.8	8.7	9.5
Department of the Lakes (all white)		1,418 15	951.65	35.67	26.95	7.93	3.57	43.60	30.52	47.03	37.18	30.65	10.07	17.2	12.1	11.2	11.7
Department of the Missouri	white	1,390.64	955.97	31.38	21.54	6.09	2.81	37.47	24.35	38.12	28.71	24.07	18.57	14.0	10.0	8.8	9.2
	colored	1,263.05	771.05	21.57	16.01	8.35	6.26	29.92	22.27	30.36	18.52	18.44	12.10	11.1	8.8	6.8	8.8
	total	1,367.26	922.09	29.58	20.53	6.50	3.44	36.08	23.97	36.69	26.84	23.04	17.38	14.1	9.9	8.4	9.1
Department of Dakota	white	1,258.13	783.62	37.96	18.98	5.42	1.63	43.38	20.61	76.88	65.26	11.22	35.15	15.7	12.4	8.4	10.7
	colored	1,205.46	806.24	16.91	13.00	6.50	5.20	23.41	18.20	30.18	25.90	19.46	17.36	11.0	9.2	7.1	8.8
	total	1,243.02	790.28	31.76	17.22	5.74	2.68	37.50	19.90	39.02	33.21	21.88	18.89	14.3	11.5	8.0	10.1
Department of Texas	white	1,374.41	825.59	22.34	15.13	5.04	1.80	27.38	16.93	42.36	32.82	22.84	17.69	15.5	11.3	8.4	10.1
	colored	1,213.18	686.04	3.88	3.88	....	....	3.88	3.88	41.28	25.78	18.61	11.92	15.1	12.5	6.8	9.9
	total	1,350.70	846.69	20.77	11.18	4.62	1.65	25.39	15.83	42.27	32.23	22.48	17.22	15.5	11.4	8.2	9.7
Department of the Colorado (all white)		1,583.41	1,078.23	27.80	18.38	10.84	8.48	38.64	26.86	46.13	36.54	25.98	21.06	16.9	10.7	9.5	8.8
Department of California	white	1,223.52	860.00	9.54	6.30	2.70	.90	12.24	7.20	26.07	16.46	15.49	9.98	9.5	7.8	5.7	6.6
	colored	1,038.65	599.04	7.25	2.42	4.83	2.42	12.08	4.84	24.35	12.12	11.38	6.16	8.9	8.6	4.2	7.0
	total	1,210.68	841.90	9.38	6.03	2.85	1.00	12.23	7.03	25.95	16.16	15.20	9.72	9.5	7.8	5.6	6.6
Department of the Columbia, excluding Alaska	white	923.93	608.20	18.09	15.51	1.85	.74	19.94	16.25	31.55	26.51	19.05	16.18	11.5	12.5	7.0	11.5
	colored	74.48	41.97	12.35	8.23	4.12	4.12	16.47	12.35	31.70	25.89	12.44	10.92	11.6	15.6	4.6	10.8
	total	909.18	592.68	17.62	14.91	2.03	1.02	19.65	15.93	31.56	26.47	18.51	15.74	11.5	12.7	6.7	11.4
General hospitals in United States		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
United States (continental), excluding Alaska	white	1,315.73	870.06	32.00	23.25	6.32	3.43	38.22	26.68	47.13	38.51	29.56	21.67	17.3	13.2	10.9	12.4
	colored	1,176.22	723.50	18.07	13.40	7.79	6.23	25.86	19.63	35.62	25.76	21.54	46.74	13.0	11.1	7.9	10.9
	total	1,305.83	859.65	31.04	22.58	6.44	3.64	37.48	26.22	46.32	37.60	28.99	24.10	17.0	13.0	10.7	12.3

DEPARTMENT OF THE EAST.

All the rates in this department were better than for 1903. Madison Barracks, N. Y., had the lowest noneffective ratio and Fort McKinley, Me., the highest.

DEPARTMENT OF THE GULF.

All the garrisoned posts of this department, with two exceptions, are situated on or near the sea or gulf coasts. The average health conditions taken as a whole have been good. The average morbidity has not been so great as that prevailing in localities adjacent to the posts. The prevailing diseases in the order of their frequency have been venereal diseases, influenza, dengue, typhoid and malarial fevers, and dysentery. Venereal diseases existed at all posts and have produced a large amount of morbidity. Influenza of a mild type has occurred at two or more posts, but as the weather conditions are more favorable than farther north there have been few serious complications. Typhoid fever in epidemic form has occurred at two posts. Malarial fevers have prevailed to a limited extent at several of the posts, but the filling in of stagnant pools, the use of kerosene oil, and the screening of sleeping barracks is gradually reducing the number of cases at the affected posts. A number of cases of acute dysentery occurred at two posts, believed to have been caused by drinking infected water. The disease disappeared as soon as the cause was removed. The post having the highest noneffective rate was Fort Oglethorpe, while Fort De Soto had the lowest.

DEPARTMENT OF THE MISSOURI.

Fort Niobrara still retained position of first place, which it has held for some years, as the healthiest post in the department. Jefferson Barracks has the unsavory place at the foot of the list in the relative standing of posts in the matter of health. Its large percentage of noneffectiveness was attributable in part to the prevalence of malarial fevers at this post during the past summer. Furthermore, as it is a recruit rendezvous, its sick report was swelled thereby in a larger proportion than was its garrison. There has been an unusually large number of cases of malarial fever at Jefferson Barracks, the number of admissions for this disease being about twice as large as during any of the last three fiscal years. Efforts have been made to mitigate the mosquito nuisance by spraying with petroleum twice a week all standing water in the vicinity of the post. It is worthy of notation that Fort Niobrara did not report a case of malarial fever for the past calendar year. Typhoid fever has been endemic at Fort Leavenworth since August of 1903, one or more cases having developed every month during that period. While smallpox has occurred at Forts Leavenworth, Riley, and Jefferson Barracks, only 1 case, that at Jefferson Barracks, appeared among the officers and enlisted men. Each post in the department has reported 2 or more cases of measles during the year. This disease became an epidemic of some proportions at Fort Leavenworth in the spring, reaching its culmination during the month of March. In all, 152 cases were admitted to sick report.

DEPARTMENT OF THE LAKES.

The health of the troops in this department has been in the main satisfactory during the year. There has been no disease as far as known arising from insanitary conditions at posts and the number of cases of preventable diseases has been restricted to a minimum so far as timely recommendations and watchfulness on the part of medical officers could accomplish that object. Nine cases of typhoid fever were reported but it is not believed that the disease was contracted in any case at a post. The prevailing diseases were tonsillitis, bronchitis, diarrhea, rheumatism, gastrointestinal affections, malarial fevers, and venereal diseases. The malarial fevers reported appear to have been contracted mostly, if not wholly, outside of the department, the Philippine Islands being the locality mentioned by some of the post surgeons.

DEPARTMENT OF DAKOTA.

Fort Yellowstone had the lowest noneffective rate of any post in this department, while Fort Snelling had the highest.

DEPARTMENT OF TEXAS.

The general health of troops serving in the department during the year was very good. Barring one case of yellow fever reported from Fort Brown, Tex., and two cases of dengue from the same place (all of which occurred in the same month, a rather suspicious circumstance) no disease particularly attributable to locality has occurred during the year. The diseases causing the highest degree of noneffectiveness were those coming under the venereal group. Malarial fevers followed venereal diseases in point of numerical frequency. For the most part the infecting parasite, when mentioned, was almost wholly that of the tertian although the estivo-autumnal form is largely found along the lower Rio Grande and the gulf coast of Texas.

There were 16 admissions for typhoid fever during the year, 10 at Fort Sam Houston, 3 at Fort Brown, and 3 at Fort Logan H. Roots. There were 3 admissions for cerebrospinal meningitis, with 1 death, all at Fort Bliss. An additional 3 cases with 2 deaths have been recently reported by telegraph from the same post.

DEPARTMENT OF THE COLORADO.

This department contains eight occupied posts and is situated in greater part on the eastern slope of the main range of the Rocky Mountains, with the exception of Forts Douglas and Du Chesne, Utah, which are on the western slope. All of the posts are in the semiarid region of the United States and are at an average altitude of 5,000 feet. Owing to the dryness and altitude of their locations they are without exception exceedingly favorable stations for troops and are in fact included in the region popularly known as the "health resort" for the civilian population of the country suffering with or threatened by pulmonary diseases. The favorable condition of the department is further shown by the fact that malarial diseases practically never originate there, the cases shown on sick report almost always being in soldiers returned from the Philippines or who have become infected in other posts of the United States before arrival. This condition was well shown by the reports made by surgeons from all posts of their investigations of mosquitoes found in their vicinity which show that few of the malaria-bearing species exist, the innocuous varieties mainly being found, excepting at Fort Du Chesne and Fort Huachuca. It is possible that errors have been made in deciding the species in these cases and this matter will be investigated thoroughly during the next warm season and new reports made. Generally speaking the cases of chronic malarial cachexia returning from the Philippines to this department improve rapidly excepting where profound changes in the blood have taken place, which cases are sometimes slow to cure. Dysenteries of the amebic form, however, persist indefinitely. Ordinary chronic diarrhea and severe anemias contracted in that vicinity appear to recover rapidly in this climate. Fort Douglas had the lowest noneffective rate for this department and Whipple Barracks the highest.

DEPARTMENT OF CALIFORNIA.

This department was, as usual, one of the healthiest in the United States.

DEPARTMENT OF THE COLUMBIA.

The admission rate for this department was lower than for any other.

Tables II and III show the five most healthful and the five least healthful posts in the United States from various points of view.

TABLE II.

HEALTHIEST POSTS.

Absolute numbers.

	Mean strength.	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.			
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										Total.	In hospital.	Total.	In hospital.
Lowest admission rates from all causes.													
Fort Niagara, N. Y	263	115	71	2	1	......	......	2	1	5.31	4.80	3.73	3.62
Madison Barracks, N. Y	517	267	170	8	4	4	......	12	4	10.06	5.35	6.15	3.53
Fort Hancock, N. J	494	285	192	7	6	4	1	11	7	11.33	11.08	7.83	7.64
Monterey, Cal., Presidio of	908	642	408	15	4	5	2	20	6	23.73	19.01	13.13	10.06
West Point (Soldiers' Hospital), N. Y	466	357	236	8	6	5	3	13	9	9.61	7.32	5.58	4.29
Lowest admission rates, excluding injuries, venereal diseases, and alcoholism.													
Fort Niagara, N. Y	263	115	71	2	1	......	......	2	1	5.31	4.80	3.73	3.62
Madison Barracks, N. Y	517	267	170	8	4	4	......	12	4	10.06	5.35	6.15	3.53
Fort Hancock, N. J	494	285	192	7	6	4	1	11	7	11.33	11.08	7.83	7.64
Monterey, Cal., Presidio of	908	642	408	15	4	5	2	20	6	23.73	19.01	13.13	10.06
Fort Walla Walla, Wash	295	250	133	1	1	......	......	1	1	10.24	8.41	3.88	3.36
Lowest noneffective rates from all causes.													
Madison Barracks, N. Y	517	267	170	8	4	4	......	12	4	10.06	5.35	6.15	3.53
Fort Niagara, N. Y	263	115	71	2	1	......	......	2	1	5.31	4.80	3.73	3.62
Fort Niobrara, Nebr	533	425	256	13	10	3	2	16	12	10.84	7.91	7.67	6.60
West Point (Soldiers' Hospital), N. Y	466	357	236	8	6	5	3	13	9	9.61	7.32	5.58	4.29
Fort Harrison, Mont	285	271	182	2	1	......	......	2	1	6.33	6.15	4.19	4.09
Lowest noneffective rates, excluding injuries, venereal diseases, and alcoholism.													
Madison Barracks, N. Y	517	267	170	8	4	4	......	12	4	10.06	5.35	6.15	3.53
West Point (Soldiers' Hospital), N. Y	466	357	236	8	6	5	3	13	9	9.61	7.32	5.58	4.29
Fort Thomas, Ky	404	453	249	3	3	......	......	3	3	12.57	9.75	5.25	3.75
Fort Walla Walla, Wash	295	250	133	1	1	......	......	1	1	10.24	8.41	3.88	3.36
Fort Sam Houston, Tex	785	763	454	10	5	3	1	13	6	18.40	16.45	10.44	9.95

TABLE II (continued).—*Proportionate numbers.*

	Ratios per 1,000 of mean strength.												Average number of days lost.			
	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.		Excluding injuries, venereal diseases, and alcoholism.		For each soldier.	For each case.	For each soldier.	For each case.
									Total.	In hospital.	Total.	In hospital.				
Lowest admission rates from all causes.																
Fort Niagara, N. Y	437.26	269.96	7.60	3.80	....	....	7.60	3.80	20.23	18.25	14.20	13.76	7.4	16.9	5.2	19.2
Madison Barracks, N. Y	516.44	328.82	15.47	7.74	7.74	....	23.21	7.74	19.45	10.35	11.89	6.83	7.12	13.8	4.1	13.2
Fort Hancock, N. J	576.92	388.66	14.17	12.14	8.10	2.02	22.27	14.16	22.93	22.43	15.85	15.47	8.4	14.5	5.8	14.9
Monterey, Cal., Presidio of	707.05	449.34	16.52	4.41	5.51	2.20	22.03	6.61	26.14	20.89	14.46	11.06	9.6	13.5	5.3	11.8
West Point (Soldiers' Hospital), N. Y	766.09	506.44	17.17	12.88	10.73	6.44	27.90	19.32	20.62	15.70	11.97	9.21	7.5	9.9	4.4	8.6
Lowest admission rates, excluding injuries, venereal diseases, and alcoholism.																
Fort Niagara, N. Y	437.26	269.96	7.60	3.80	....	....	7.60	3.80	20.23	18.25	14.20	13.76	7.4	16.9	5.2	19.2
Madison Barracks, N. Y	516.44	328.82	15.47	7.74	7.74	....	23.21	7.74	19.45	10.35	11.89	6.83	7.12	13.8	4.1	13.2
Fort Hancock, N. J	576.92	388.66	14.17	12.14	8.10	2.02	22.27	14.16	22.93	22.43	15.85	15.47	8.4	14.5	5.8	14.9
Monterey, Cal., Presidio of	707.05	449.34	16.52	4.41	5.51	2.20	22.03	6.61	26.14	20.89	14.46	11.06	9.6	13.5	5.3	11.8
Fort Walla Walla, Wash	847.46	450.85	3.39	3.39	....	....	3.39	3.39	34.71	28.51	13.16	11.39	12.7	15.0	4.8	10.7
Lowest noneffective rates from all causes.																
Madison Barracks, N. Y	516.44	328.82	15.47	7.74	7.74	....	23.21	7.74	19.45	10.35	11.89	6.83	7.12	13.8	4.4	13.2
Fort Niagara, N. Y	437.26	269.96	7.60	3.80	....	....	7.60	3.80	20.23	18.25	14.20	13.76	7.4	16.9	5.2	19.2
Fort Niobrara, Nebr	797.37	180.30	24.39	18.76	5.63	3.75	30.02	22.51	20.34	14.84	14.40	12.38	7.4	9.3	5.3	11.0
West Point (Soldiers' Hospital), N. Y	766.09	506.44	17.17	12.88	10.73	6.44	27.90	19.32	20.62	15.70	11.97	9.21	7.5	9.9	4.4	8.6
Fort Harrison, Mont	950.88	638.60	7.02	3.51	....	....	7.02	3.51	22.21	21.58	14.70	14.35	8.1	8.5	5.1	8.4
Lowest noneffective rates, excluding injuries, venereal diseases, and alcoholism.																
Madison Barracks, N. Y	516.44	328.82	15.47	7.74	7.74	....	23.21	7.74	19.45	10.35	11.89	6.83	7.12	13.8	4.4	13.2
West Point, N. Y	766.09	506.44	17.17	12.88	10.73	6.44	27.90	19.32	20.62	15.70	11.97	9.21	7.5	9.9	4.4	8.6
Fort Thomas, Ky	1,121.29	616.24	7.43	7.43	....	....	7.43	7.43	31.11	24.13	12.98	9.28	11.4	10.2	4.8	7.7
Fort Walla Walla, Wash	847.46	450.85	3.39	3.39	....	....	3.39	3.39	34.71	28.51	13.16	11.39	12.7	15.0	4.8	10.7
Fort Sam Houston, Tex	971.97	578.34	12.74	6.37	3.82	1.27	16.56	7.64	22.98	20.96	13.29	12.68	8.4	8.7	4.9	8.4

TABLE III.

LEAST HEALTHFUL POSTS.

Absolute numbers.

	Mean strength.	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.			
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										Total.	In hospital.	Total.	In hospital.
Posts having highest admission rates from all causes.													
Fort McKinley, Me	246	684	423	12	8	1	1	13	9	16.37	12.87	7.75	5.72
Fort H. G. Wright, N. Y	208	546	409	12	8	4		16	8	7.45	10.93	4.59	7.83
Key West Barracks, Fla	323	743	597	3	2	1	1	4	3	16.34	11.15	12.31	8.53
Fort Myer, Va	592	1,312	774	27	17	2	2	29	19	44.42	37.52	20.91	14.43
Jefferson Barracks, Mo	755	1,649	1,221	54	37	6	5	60	42	43.94	23.87	26.03	14.42
Posts having highest admission rates, excluding injuries, etc.													
Fort H. G. Wright, N. Y	208	546	409	12	8	4		16	8	7.45	10.93	4.59	7.83
Key West Barracks, Fla	323	743	597	3	2	1	1	4	3	16.34	11.15	12.31	8.53
Fort McKinley, Me	246	684	423	12	8	1	1	13	9	16.37	12.87	7.75	5.72
Jefferson Barracks, Mo	755	1,649	1,221	54	37	6	5	60	42	43.94	23.87	26.03	14.42
Columbus Barracks, Ohio	783	1,527	1,153	60	49	11	6	71	55	60.56	46.07	46.37	34.74
Posts having highest noneffective rates from all causes.													
Columbus Barracks, Ohio	783	1,527	1,153	60	49	11	6	71	55	60.56	46.07	46.37	34.74
Fort Myer, Va	592	1,312	774	27	17	2	2	29	19	44.42	37.52	20.91	11.43
Fort McKinley, Me	246	684	423	12	8	1	1	13	9	16.37	12.87	7.75	5.72
Washington Barracks, D. C	304	641	388	3	3	2	2	5	5	18.94	17.95	14.69	13.64
Jackson Barracks, La	211	336	201	8	2	3	2	11	4	13.16	8.97	6.84	4.53
Posts having highest noneffective rates, excluding injuries, etc.													
Columbus Barracks, Ohio	783	1,527	1,153	60	49	11	6	71	55	60.56	46.07	46.37	34.74
Key West Barracks, Fla	323	743	597	3	2	1	1	4	3	16.34	11.15	12.31	8.53
Fort H. G. Wright, N. Y	208	546	409	12	8	4		16	8	7.45	10.93	4.59	7.83
Fort Myer, Va	592	1,312	774	27	17	2	2	29	19	41.42	37.52	20.91	11.43
Fort Adams, R. I	406	379	251	5	4	1	1	6	5	23.75	20.83	14.05	11.90

TABLE III (continued).—*Proportionate numbers.*

	Ratios per 1,000 of mean strength.												Average number of days lost.			
	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.		Excluding injuries, venereal diseases, and alcoholism.		For each soldier.	For each case.	For each soldier.	For each case.
									Total.	In hospital.	Total.	In hospital.				
Highest admission rates from all causes.																
Fort McKinley, Me	2,780.49	1,719.51	48.78	32.52	4.07	4.07	52.85	36.59	66.56	53.33	31.51	24.39	24.1	8.8	11.5	6.7
Fort H. G. Wright, N. Y	2,625.00	1,966.35	57.69	38.46	19.23	....	76.92	38.46	52.56	35.82	35.43	22.07	19.2	7.3	13.0	6.6
Key West Barracks, Fla	2,300.30	1,848.29	9.29	6.19	3.10	3.10	12.39	9.29	49.83	34.52	37.37	26.41	18.2	7.9	13.7	7.4
Fort Myer, Va	2,216.22	1,307.43	45.61	28.72	3.38	3.38	48.98	32.09	75.03	63.38	35.32	24.37	27.5	12.4	12.9	9.9
Jefferson Barracks, Mo	2,184.11	1,617.22	71.52	49.01	7.95	6.62	79.47	55.63	58.20	31.61	34.47	19.09	21.3	9.8	12.6	7.8
Highest admission rates, excluding injuries, venereal diseases, and alcoholism.																
Fort H. G. Wright, N. Y	2,625.00	1,966.35	57.69	38.46	19.23	....	76.92	38.46	52.56	35.82	35.43	22.07	19.2	7.3	13.0	6.6
Key West Barracks, Fla	2,300.30	1,848.29	9.29	6.19	3.10	3.10	12.39	9.29	49.83	34.52	37.37	26.41	18.2	7.9	13.7	7.4
Fort McKinley, Me	2,780.49	1,719.51	48.78	32.52	4.07	4.07	52.85	36.59	66.56	53.33	31.51	24.39	24.1	8.8	11.5	6.7
Jefferson Barracks, Mo	2,184.11	1,617.22	71.52	49.01	7.95	6.62	79.47	55.63	58.20	31.61	34.47	19.09	21.3	9.8	12.6	7.8
Columbus Barracks, Ohio	1,950.19	1,472.54	76.62	62.58	14.05	7.66	90.68	70.24	77.35	58.84	59.22	44.38	28.3	14.5	21.7	14.7
Highest noneffective rates from all causes.																
Columbus Barracks, Ohio	1,950.19	1,472.54	76.62	62.58	14.05	7.66	90.68	70.24	77.35	58.84	59.22	44.38	28.3	14.5	21.7	14.7
Fort Myer, Va	2,216.22	1,307.43	45.61	28.72	3.38	3.38	48.98	32.09	75.03	63.38	35.32	24.37	27.5	12.4	12.9	9.9
Fort McKinley, Me	2,780.49	1,719.51	48.78	32.52	4.07	4.07	52.85	36.59	66.56	53.33	31.51	24.39	24.1	8.8	11.5	6.7
Washington Barracks, D. C	2,108.55	1,276.32	9.87	9.87	6.58	6.58	16.45	16.45	63.91	59.05	29.28	16.43	23.4	11.1	10.7	8.4
Jackson Barracks, La	1,592.44	952.61	37.92	9.48	14.22	9.48	52.14	18.96	62.39	42.51	32.40	21.42	22.8	14.3	11.9	12.4
Highest noneffective rates, excluding injuries, venereal diseases, and alcoholism.																
Columbus Barracks, Ohio	1,950.19	1,472.54	76.62	62.58	14.05	7.66	90.68	70.24	77.35	58.84	59.22	44.38	28.3	14.5	21.7	14.7
Key West Barracks, Fla	2,300.30	1,848.29	9.29	6.19	3.10	3.10	12.39	9.29	49.83	34.52	37.37	26.41	18.2	7.9	13.7	7.4
Fort H. G. Wright, N. Y	2,625.00	1,966.35	57.69	38.46	19.23	....	76.92	38.46	52.56	35.82	35.43	22.07	19.2	7.3	13.0	6.6
Fort Myer, Va	2,216.22	1,307.43	45.61	28.72	3.38	3.38	48.98	32.09	75.03	63.38	35.32	24.37	27.5	12.4	12.9	9.9
Fort Adams, R. I	933.50	618.23	12.31	9.85	2.46	2.46	14.77	12.31	58.49	51.31	34.61	29.06	21.4	22.9	12.7	20.5

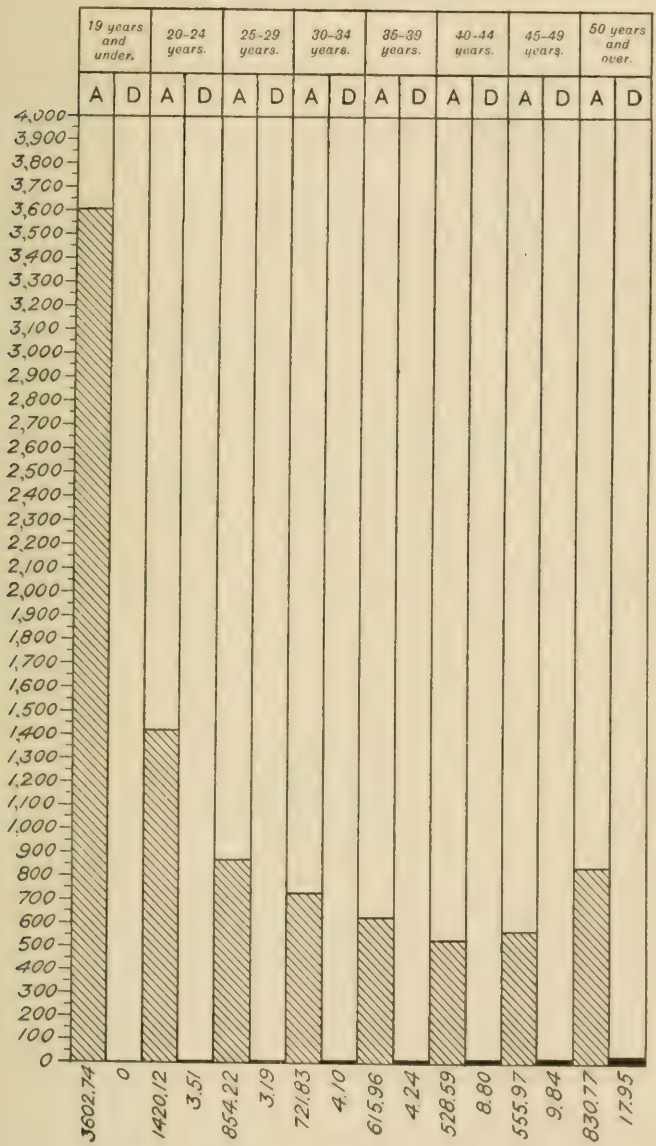
EFFECT OF AGE AND LENGTH OF SERVICE.

In the following tables are shown the effects of age and length of service upon rates for disease:

Age.	Mean strength.	Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.	Ratios per 1,000 of mean strength.		
					Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.
19 years and under	73	263	7	....	3,602.74	95.89	....
20 to 24 years	18,521	26,302	667	65	1,420.12	36.01	3.51
25 to 29 years	14,097	12,042	324	45	854.22	22.98	3.19
30 to 34 years	5,849	4,222	120	24	721.83	20.52	4.10
35 to 39 years	2,833	1,745	57	12	615.96	20.12	4.24
40 to 44 years	1,364	721	24	12	528.59	17.59	8.80
45 to 49 years	813	452	9	8	555.97	11.07	9.84
50 years and over	390	324	12	7	830.77	30.77	17.95
Total	43,940	46,071	1,220	173	1,048.50	27.77	3.94

Length of service.	Mean strength.	Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.	Ratios per 1,000 of mean strength.		
					Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.
1 year and under	11,689	17,266	617	46	1,477.12	52.78	3.94
1 to 2 years	6,205	5,088	124	14	819.98	19.98	2.26
2 to 3 years	6,608	9,224	158	21	1,395.89	23.91	3.18
3 to 4 years	4,242	3,726	87	15	878.36	20.51	3.54
4 to 5 years	2,977	2,728	60	8	916.36	20.15	2.69
5 to 10 years	7,848	5,453	119	31	694.82	15.16	3.95
10 years and over	4,371	2,586	55	38	591.63	12.58	8.69
Total	43,940	46,071	1,220	173	1,048.50	27.77	3.94

Chart showing the relation of ages to admissions and deaths for disease in the United States (white and colored).



It will be seen that the highest admission and discharge for disability rates and the lowest death rate were recorded for soldiers under 30 years of age. The lowest admission figures were for soldiers between 40 and 44 years, the lowest discharge rate between 45 and 49, and the highest death ratio for 50 years and over. The admission rate for soldiers of 19 years and under was very high, nearly seven times that for the age period 40 to 44.

From the point of view of length of service the highest admission and discharge figures occurred in soldiers of less than one year's service, the highest death rate in those of ten years' service and over; conversely the lowest admission and discharge rates were in soldiers of ten years' service and over and the lowest death ratio in those under two years' service.

In assigning a proper value to ratios for age and length of service it is to be borne in mind that the strength used is not a mean strength for the year, but only the strength reported on the last day of the year approximated to the true mean.

The post having the highest noneffective rate was Columbus Barracks, Ohio, while all the other ratios were highest at Fort H. G. Wright, N. Y. Madison Barracks, N. Y., had the lowest noneffective figure and Fort Niagara, N. Y., also on Lake Ontario, had the lowest admission rate and no death.

The cause of the high noneffective rate at Columbus Barracks is probably to be found in the fact that it is a recruiting depot where large numbers of recruits were under observation to determine their physical condition and where contagious diseases were frequently introduced. The high admission rates at Fort H. G. Wright were largely the result of diseases due to exposure, such as rheumatism, catarrhs of the respiratory tract, etc., none of the deaths were due to disease.

EFFECTS OF SEASON.

The following table shows the movement of sick by months:

Months.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal, etc.).
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	41,679	124.07	0.34	50.15	87.94	0.22	31.65	Tonsillitis, 528 cases; acute bronchitis, 411 cases; influenza, 333 cases.
February	43,178	127.96	.42	50.93	96.44	.25	34.57	Influenza, 746 cases; tonsillitis, 505 cases; acute bronchitis, 394 cases.
March	43,184	136.33	.88	52.79	100.89	.58	36.82	Influenza, 656 cases; tonsillitis, 559 cases; acute bronchitis, 374 cases; measles, 260 cases.
April	44,376	116.43	.79	48.88	79.88	.56	33.09	Influenza, 344 cases; tonsillitis, 334 cases; acute bronchitis, 277 cases.
May	45,418	101.90	.68	44.54	65.22	.44	28.56	Tonsillitis, 262 cases; malarial fever intermittent, 160 cases; acute bronchitis, 154 cases; acute diarrhea, 136 cases; mumps, 107 cases.
June	44,491	93.39	.56	42.33	57.81	.20	26.55	Diarrhea, acute, 219 cases; tonsillitis, 133 cases; dyspepsia, 130 cases.
July	44,737	103.16	.65	41.95	63.53	.31	25.21	Diarrhea, acute, 472 cases; dyspepsia, 201 cases; malarial fever, intermittent, 180 cases.

Months.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal, etc.).
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
August	44,441	109.67	.52	43.93	70.88	.22	26.45	Diarrhea, acute, 550 cases; malarial fever, intermittent, 237 cases; dyspepsia, 224 cases.
September ..	44,007	102.46	.36	43.74	65.17	.16	26.87	Diarrhea, acute, 437 cases; malarial fever, intermittent, 235 cases; dyspepsia, 145 cases; tonsillitis, 129 cases; dengue, 93 cases.
October.....	43,987	98.83	.52	44.16	56.33	.30	25.57	Malarial fever, intermittent, 189 cases; diarrhea, acute, 179 cases; tonsillitis, 154 cases.
November ..	43,580	95.48	.25	45.74	55.51	.18	25.85	Tonsillitis, 246 cases; acute bronchitis, 174 cases; diarrhea, acute, 169 cases.
December ..	44,209	98.04	.45	47.34	62.11	.20	27.36	Tonsillitis, 357 cases; acute bronchitis, 269 cases; muscular rheumatism, 147 cases; influenza, 111 cases; coryza, 114 cases.
Total .	43,940	1,305.83	6.44	46.32	859.65	3.64	28.99	

Exclusive of venereal diseases, alcoholism, and injuries, the highest rates occurred in March, the lowest admission rate in November, lowest death ratio in September, and lowest noneffective rate in July.

THE INFLUENCE OF RACE.

None of the colored troops having served outside the limits of the United States proper during the year, a comparison of their rates with those for white troops is given here. The admission, discharge for disability, death, and noneffective figures for colored troops from all causes were 1,176.22, 18.07, 7.79, and 35.62, respectively, compared with 1,315.73, 32, 6.32, and 47.13 for white troops. As usual, therefore, all the rates for colored troops, except the death rate, were lower than for white. All the ratios for colored troops this year were higher than for 1903, except the death rate, which was very much lower.

The admission and discharge rates from disease for white troops were in excess of those for the negroes, while the death ratio was 2.82 per thousand men less than that for the colored soldiers.

The colored troops had only 1 case of sunstroke and 1 of drowning.

The relative prevalence of certain special diseases among white and colored troops, with the admission rates per thousand for each race, are shown in the following tables:

Disease.	White.	Colored.
Typhoid fever	6.00	0.64
Measles	19.04	4.17
Malaria	51.30	21.14
Syphilis	29.00	13.78
Alcoholism	26.43	12.18
Dysentery	8.82	4.17
Gonorrhea	108.61	86.83
Insanity	1.71	1.60
Frostbite	1.30	9.61
Smallpox	.29	.64
Sunstroke	.17	.32
Pneumonia	5.12	8.65
Tuberculosis	4.11	6.41

The relative importance of special diseases as causes of death, with the death rates per thousand for each race, was as follows:

Disease.	White.	Colored.
Typhoid fever	0.29	....
Measles	.32	....
Cancer	.04	0.93
Pneumonia	.76	1.56
Alcoholism	.24	.31
Tuberculosis	.59	.93

There were 27 suicides among the white troops, as against none among the colored soldiers.

SANITATION.

The following data were compiled from the reports of chief surgeons and monthly and special sanitary reports:

DEPARTMENT OF THE EAST.

Fort Andrews, Mass.—Wooden buildings used as barracks, in good condition, accommodating 50 men. Tents used in good condition, but without flies. Surroundings good. Buildings insufficient in number to accommodate officers and men. The prevailing diseases are bronchitis and coryza. The water supply of this post is bad. The drinking water is pumped from a well near the barracks, which is fed, it is believed, by surface drainage. Before being used it is passed through Forbes sterilizers. The water used for other purposes is pumped from the mortar-battery drainage system. The supply of water, such as it is, has been barely sufficient at times for the needs of the post. The following recommendations were made: That the water carriage system for disposal of sewage be improved, and that drinking water be obtained from neighboring islands or mainland.

Fort Constitution, N. H.—The water supply is reported as inadequate, and recommendation is made that water be piped from Portsmouth, N. H. This recommendation is under consideration.

Fort Du Pont, Del.—The drainage during wet weather is exceedingly poor. The water supply is insufficient and contains iron and hydrogen sulphide, which give it a disagreeable odor and taste; it is not injurious to health. Work on a new artesian well is in progress.

Fort Ethan Allen, Vt.—Water supply is of excellent quality, but not sufficient in quantity for the present command. Five cases of typhoid fever were admitted to hospital at this post during the period September 16 to October 20, 1904, one of them resulting fatally. The surgeon is of the opinion that in all but one of these cases the disease was contracted at or near Manassas Junction during the maneuvers in Prince William County, Va. The excepted case was a private of the hospital corps, who probably became infected in the hospital through failure on his part to carry out the rules laid down for personal disinfection.

Fort Greble, R. I.—Buildings on reservation are satisfactory except guardhouse, which is inadequate in size. The water supply of this post is unsatisfactory, and recommendation is made that water be piped from Saunderstown. The commanding officer states that while the supply of water from the springs at Saunderstown is excellent in quality, the quantity is uncertain and that a distilling plant would better serve the needs of the post.

Fort Hamilton, N. Y.—Many of the buildings are reported as old, going to decay, and very unsightly. Plans for remodeling the post have been submitted.

Fort Hancock, N. J.—Seven cases of typhoid fever occurred at this post during the period August 26 to November 1, 1904, the dates of admission of the first and last cases, respectively. The cases followed the appearance at the post of an ambulant case in the person of a civilian laborer employed by a contractor engaged in erecting new buildings at the post. One of the cases was that of the wife of an enlisted man, living in a wooden shanty near the quarters of the civilian laborers. The other cases were among soldiers living not far distant. The post drinking water was considered above suspicion, and the infection is thought to have been transmitted by flies. Energetic measures were taken to prevent the access of flies to food supplies. The last case admitted was that of a recruit fourteen days at Fort Hancock, and the probability of his having contracted the disease at the post was considered doubtful. The patients all recovered. The surgeon reports that the water is a surface supply, and hence not satisfactory or safe. December 1 the commanding officer stated that the work of sinking an 8-inch artesian well would be commenced in about a month. There are ten detached houses on the reservation not connected with sewers. These are shacks which are scattered over territory which it is impracticable to connect with a sewer system. Earth closets are used by the occupants and emptied each week. It is believed to be a mistake to allow such buildings to be constructed on a military reservation, as they are a source of petty annoyance and are a menace to the health of a command.

Fort Howard, Md.—Drainage of low grounds on the reservation is not good. Estimates for filling in these marshy grounds were disapproved by the Quartermaster-General's Office. Six cases of typhoid fever occurred at this post during the period September 4 to October 3, 1904, with one death. The disease in these cases was believed by the surgeon to have been contracted in the city or neighborhood of Baltimore, where typhoid fever was prevalent during the summer and fall, and not due to any conditions existing at the post.

Fort Jay, N. Y.—Two cases of typhoid fever occurred at this post among the enlisted men, the first of which was admitted October 16, 1904, and resulted fatally; the other was admitted November 3, 1904, and returned to duty. The source of infection in the first case is unknown. As the soldier last taken sick had not been off the island for a month prior to his illness, the disease in his case was considered to have been contracted on the island. The water supply was suspected, and orders were given regarding the use of boiled water for drinking purposes.

Fort McHenry, Md.—The barracks are described as old, without ventilating or general heating systems.

Fort Monroe, Va.—Water supply is ample and of fair quality. All drinking water is supplied from post distilling plant.

Fort Mott, N. J.—Present buildings are temporary and inadequate. New barracks, hospital, and officers' quarters are now in course of construction. Water supply is described as fair in quality.

Fort Myer, Va.—The work of draining and oiling done during the past two summers has had a marked effect on malarial diseases at this post. This work is only temporary and is ineffective in removing the conditions which produce the disease. Draining and oiling have to be kept up constantly from March to November. The surgeon urges that efforts be made to obtain funds for permanent drainage, clearing away of underbrush, etc. The water supplied the post, though reported as good in quality, is filtered, and examinations of same are made continuously at the hospital laboratory. Eight cases of typhoid fever occurred at this post, principally among members of the signal corps, during the period September 13 to November 14, 1904, with one death. The infection did not seem to have occurred in any one place, and the surgeon states that it did not originate at the post.

Fort Niagara, N. Y.—Four cases of typhoid fever occurred among the enlisted men at this post in October, 1904, three of which were admitted on October 4 and the other October 8. The cases are believed to have originated in Buffalo, N. Y., in which city the disease was epidemic at the time. They all recovered. The general water supply of this post is reported as contaminated, and water for drinking and culinary purposes is sterilized by means of Forbes sterilizers.

Fort Porter, N. Y.—An extremely unsatisfactory sanitary condition of the guardhouse is reported. Plans were called for looking to the rectification of the sanitary defects, but the matter appears to have been dropped without any relief. No substantial improvements have been effected, although defects have been noted by several post surgeons and approved by as many commanding officers. The overcrowding has been marked. The ventilation is entirely inadequate, the building is damp, and new flooring is a necessity. The bathing facilities are inadequate, and there is no hot-water supply. It is an extremely difficult matter to keep prisoners even reasonably clean under these conditions, and baths without hot water the greater part of the year in this climate are impracticable. The walls are badly stained, cracked, and broken, and in places the lathwork exposed. It has been difficult to keep the prisoners free from vermin. Extensive repairs are a real necessity. The building as it now stands is of very little value, and to put it in good shape will involve a considerable outlay. A new and modern structure is recommended. The conditions in two of the company lavatories are unsatisfactory. The closets are old, out of repair, and because of the old patterns worn-out parts can not be replaced. The bath tubs are old and badly rusted, and the general condition of the bathrooms is unsatisfactory. Extensive repairs are recommended in these quarters, including new tubs, closets, and washing fixtures complete. Owing to the unsatisfactory conditions existing the odor from the closets is marked and very objectionable. Plans and specifications for a new guardhouse have been submitted.

Fort Preble, Me.—The insanitary condition of private property adjoining the reservation as described in last annual report remains the same.

Fort Revere, Mass.—The portion of the water supply furnished by the deep wells shows no improvement and the quality of the water is bad. The entire matter has been several times reported upon and steps taken to discard the well and obtain the entire supply from the mains of the Hingham Company.

Fort Schuyler, N. Y.—The officers' quarters and Eightieth Company Barracks are reported as being impossible to keep warm in cold weather.

Fort Slocum, N. Y.—The surgeon reports as necessary the construction of new barracks in addition to those now authorized and the installation of new systems of heating, lighting, and plumbing in the old barracks. Recruits continue to occupy "wooden hovels."

Fort Trumbull, Conn.—The water supply is good in quality, except after a heavy rain, when it is very muddy and of a bad odor. It is sometimes deficient in quantity. Buildings are in fair condition only. The closets of company quarters, the plumbing of hospital, etc., are in a worn and insanitary condition.

Fort Wadsworth, N. Y.—Casemate barracks are leaky, poorly ventilated, poorly lighted, and generally insanitary, owing to structural defects.

Fort Warren, Mass.—A 3-inch extra heavy lead pipe, to be laid in a dredged channel 5 feet deep, to be used as an auxiliary water main in addition to the 6-inch cast-iron main, which has been broken and worn-out three times during the past three years, is recommended.

Washington Barracks, D. C.—Boiled water is used for drinking purposes.

Fort H. G. Wright, N. Y.—The general condition of the water supply is poor. Very limited quantities of potable water are furnished for drinking and cooking only. A water still of 1,000 gallons capacity daily is in operation at this post. The distilled water is of excellent quality, but the supply from wells is somewhat hard and salty.

DEPARTMENT OF TEXAS.

Fort Bliss, Tex.—Fort Bliss is favorably situated on an elevated mesa about 5 miles from the town of El Paso, Tex. The general sanitary condition of the post is reported as very good. The earth closet is in temporary use at present. The sewer system of the post is undergoing extensive repairs, including the installation of a septic tank; this latter is a much-needed improvement, as the disposal of sewage heretofore has not been satisfactory, unsuccessful attempts having been made to dispose of it on the open ground.

Fort Brown, Tex.—This post is situated on the lower Rio Grande, directly adjoining the town of Brownsville, and has the largest rate of admissions and the largest constant noneffective list of any post in the department. The post is badly located in two respects, viz: Low-lying ground in an alluvial river bottom partially surrounded by a more or less stagnant lagoon, and the close proximity of a town which is a constant menace from a sanitary point of view. The buildings are old and difficult to keep in proper repair, but all living habitations are well screened.

A new system of sewers has been installed in the post since February, 1904, but no work as to connecting it with the various post buildings has been undertaken save in the instance of the three-company barracks, which were connected by order of the post commander upon recommendation of the surgeon.

Fort Clark, Tex.—Fort Clark is one of the oldest posts in the department, and the buildings are reported as old and in need of repair. In fact the condition of the buildings is such that both the surgeon and post commander have reported them as not worth the cost of repair, and the latter has recommended that the present post site be abandoned and another site in the vicinity of Eagle Pass, Tex., be selected for a new post. The hospital building is in an especially bad condition. The sum of $30,000 has been appropriated by Congress for the erection of a new hospital, but on recommendation of the post and department authorities, and pending decision of the question of abandoning or rebuilding the post, no step has been taken toward its construction.

Jackson Barracks, La.—This post is now being practically rebuilt and a new system of sewerage is being installed, and when completed the post should be thoroughly modern in all sanitary requirements.

Fort Logan H. Roots, Ark.—The general sanitary condition of this post has been satisfactory except as to water supply. The post is supplied from the town water system of Little Rock, Ark., and is taken from the Arkansas River, and when not carrying large quantities of silt, during high water, has been reported as satisfactory. The water main supplying the post which crosses the river is liable to be washed out at each recurring overflow of the river; this occurred in June last, and the post was cut off from this source of supply for three months, compelling resort to post wells and driven wells on an adjoining sand bar in the river, the supply from the latter source being reported as bad. Connection with city mains was again made in September, and action has been taken looking to an independent water supply for this post in case the city company fails to give an ample and satisfactory supply.

The prevailing diseases are malarial and venereal, and these two account for the large number of admissions at this post.

Fort McIntosh, Tex.—The general sanitary condition of this post during the year has been as satisfactory as existing conditions permit. The buildings are suitable and well kept and the grounds well policed. This post was visited by yellow fever in 1903 and it was feared that the visitation would be repeated in 1904; but fortunately this was not the case, and was no doubt due in a large part to the careful and comprehensive measures of prevention instituted and systematically carried out, although the immediate proximity of the towns of Laredo and Nuevo Laredo, under existing conditions, will always be a menace to this garrison. The post is practically free from mosquitoes of all kinds, while the *Culex* and *Stegomyia* are reported in Laredo and all forms as being very abundant in Nuevo Laredo.

Fort Reno, Okla.—The buildings have been reported, with one exception, as being in good condition. The exception noted was that one of the company barracks was badly overcrowded. An expenditure of $3,600 was made for the enlargement of this barrack and the condition thereby corrected.

Mosquitoes of the varieties *Anopheles* and *Culex* are numerous, and this is evidenced by the rather large number of admissions for malaria, viz, 83 out of a total of 560 from all causes. The source of these mosquitoes is said to be the old buffalo wallows adjoining the post, which, on account of the lay of the ground, it has been found impossible to thoroughly drain. After a number of recommendations petroleum was procured and these points treated with good results.

Fort Ringgold, Tex.—The sanitary condition of this post for the year has been, with a few minor exceptions, very satisfactory. The health of the command has been by far the best of any post in the department. The water supply is pumped from the Rio Grande and after being thoroughly sedimented is distributed through the mains. It is characterized as suspicious by the surgeon and distilled water is used for drinking and culinary purposes; the supply is adequate for the present garrison. An artesian well is being drilled, but the chances of obtaining water do not seem encouraging.

Fort Sam Houston, Tex.—Several additional barracks and quarters are now in process of construction at this post and Congress has been asked for an appropriation for the erection of a new hospital. The water supply is excellent in quality and abundant as to quantity. A new steel tank of 300,000 gallons capacity is about completed.

Fort Sill, Okla.—The general sanitary condition of this post has been very good, and, with the exception of malaria, no disease particularly attributable to locality has prevailed.

Fort St. Philip, La.—This post is situated on the left bank of the Mississippi River, 73 miles below New Orleans; it is a subpost of Jackson Barracks and is garrisoned by a detachment of 61 men from that post. The health of this post for the year, notwithstanding its apparently unfavorable location, has been very good.

DEPARTMENT OF THE LAKES.

The sanitation of posts has been carefully supervised by medical officers and the infrequency of recommendations is indicative of satisfactory conditions throughout the department. At Fort Sheridan and Fort Thomas sanitary defects in the guardhouse were noted and corrected. At Fort Thomas and Columbus Barracks the water supply from the waterworks of the cities near which they are situated is regarded as unsafe, but the recommendations by the surgeons of the respective posts that the water be boiled appear to have been carried out and danger from that source avoided. At all other stations in the department the drinking water is reported as wholesome.

At Fort Brady, Mich., new company barracks were completed and the troops moved into them. Systematic drills were given in the new gymnasium during inclement weather throughout the year. Both of these changes from the old order may be regarded as important sanitary improvements.

Nearly all sanitary recommendations made during the year by post surgeons were of a minor character and were favorably acted upon. The hospital buildings at the various posts in the department have been kept in good repair. At Fort Sheridan the building is not sufficiently commodious for the command but is in a good state of repair, and additions to it are to be made soon.

DEPARTMENT OF CALIFORNIA.

The question of the proper protection and filtration of the water at Benicia Barracks is still under consideration, efforts being made by the chief surgeon to obtain a Jewell or other mechanical filter for this post in place of the Pasteur filter recommended by the Quartermaster's Department, the latter not being adapted for the purpose of clearing the water of animal and vegetable substances. A board of officers has been convened by the War Department to consider a general reconstruction of this post, and it is believed that all these insanitary conditions will be corrected in this way.

Reports of overcrowding and insufficient water supply were received from the depot of recruits and casuals, San Francisco, Cal., and recommendation made that an additional tank capable of holding 20,000 gallons be supplied as soon as practicable for the hospital and officers' quarters. Estimates were made for a proper water supply for domestic use and fire purposes, and ventilators were put in the barracks occupied by troops.

Overcrowding was also reported from Fort Baker and corrected by moving many of the men into the vacant dining room formerly used for prisoners, this building being moved nearer the thirty-second company's quarters to enable the occupants to avail themselves of the urinals, closets, etc.

Several reports were made of overcrowding at Fort McDowell, and after much correspondence and careful consideration report was made May 31, 1904, that each organization is now quartered in barracks without overcrowding.

When it was ascertained that the department rifle range at Point Bonita was to be occupied by a large detachment of prisoners with their guards, it became necessary that more permanent arrangements for the disposal of excreta and wastes be provided, and recommendation was made by the chief surgeon that the sanitary carts and odorless excavators formerly in use at the model camps at the Presidio of San Francisco be sent to that post. This recommendation was approved and the necessary apparatus installed.

DEPARTMENT OF DAKOTA.

Fort Assinniboine, Mont.—During the spring and summer months extensive improvements have been carried out and a complete separate sewerage system is being installed all over the post carrying only excreta and liquid wastes. This will replace the old dry earth system of disposing of excreta and the slop-can system of disposing of liquid waste.

Fort Harrison, Mont.—The only important change in the sanitary condition at this post during the year has been the completion of the sewer system. The prevailing diseases were bronchitis and tonsillitis. No disease is believed to have been due to insanitary conditions.

Fort Keogh, Mont.—Important changes in sanitary conditions during the year have been made by the establishment of a modern sewerage system. During the first six months of the year the prevailing diseases at this post were tonsillitis and influenza, both due to climatic conditions and the poor condition of barracks; these in winter are overcrowded, lighted with coal-oil lamps and heated by stoves burning soft coal, and of a poor quality at that. The buildings at the post are old, out of repair, and poorly ventilated.

Fort Lincoln, N. Dak.—January 4, 1904, a new hospital was completed at this post and occupied by the medical department on the same date. The accommodations for the sick in hospital have been limited at times owing to lack of room, especially during the early part of the year when the prevailing diseases were of the respiratory tract and due to overcrowding of the barracks. During the year, however, another barrack, guardhouse, administration building, and quarters for the sergeant (first class) of the hospital corps have been completed, which has materially relieved the overcrowded condition of the barracks.

Among the most important sanitary changes during the year at this post was the completion of a water-softening plant. The working of this plant is entirely satisfactory and permits of the use of the water of the artesian wells on the reservation, as formerly water for drinking and culinary purposes was obtained from the Missouri River.

Fort Missoula, Mont.—Important changes in the sanitary conditions at this post were the installation of plumbing in the houses and barracks and the completion of a sewerage system for the removal of excreta and kitchen wastes.

Fort Snelling, Minn.—The general sanitary condition of the post has been good and no important changes have been made or recommended.

Fort Yellowstone, Wyo.—The sanitary condition of this post in general has been excellent and no important changes have occurred during the year. There are no closets for servants in any of the quarters at this post; the use of the closets in rear of the quarters is therefore absolutely necessary for the present.

DEPARTMENT OF THE COLORADO.

Fort Apache, Ariz.—Much complaint of the quality of the water supply at this post has been made during the entire year and a prevalence of diarrhea has been quite constant. A surface system of drainage had been in use previous to 1904, by which sewage was carried a short distance from the buildings and discharged on the surface of the ground, a very unsatisfactory and dangerous method. During the year 1904 a very complete modern system of underground sewers has been completed and is in satisfactory operation; the discharge is in a canyon some distance from the post and the location is considered satisfactory and safe. It is understood that a complete plan for a new water supply for the post has been elaborated and is now in the hands of the authorities in Washington. This water is to be brought from a spring about 3 miles from the post by gravity to a proposed new reservoir. The location of the spring is such that it can be entirely protected from contamination by Indian camps or otherwise, and the quantity is said to be amply sufficient for all present and prospective wants without using water from the present suspicious source of supply. Six Forbes sterilizers have been supplied for the use of the post during the year.

Attention is invited to the new sewer system as being a highly important sanitary improvement during the year. All water consumed at the post is ordered to be boiled, but the supply from the present source is so small and dangerous in character that the new source of supply alluded to should be thoroughly investigated and developed if this post is to be kept up. It is understood that at present the plan has been disapproved, owing to the prospective decrease in the size of the garrison.

Fort Douglas, Utah.—The improvements during the year have consisted in the building of new quarters and other buildings of stone to replace the old ones of wood, in pursuance of a definite plan adopted by the military authorities to gradually rebuild the post, making it one of the finest in the United States and of a capacity to accommodate a full regiment of infantry. The old crowded and insanitary wooden buildings will be done away with entirely as soon as the new stone buildings are completed to take their places, and eventually this post will be one of the most satisfactory and desirable in the United States.

Fort Du Chesne, Utah.—Tonsillitis was reported as arising from foul air and lack of ventilation in barracks, which condition was amended by the authorities. The post has recently been supplied with a new system of underground sewers constructed of 6 and 8 inch vitrified sewer pipe, with proper manholes and self-flushing attachments at frequent intervals. Ten buildings are attached and others will be in the future.

Fort Grant, Ariz.—This post has been practically abandoned for the past two years, it now being considered a substation of Fort Huachuca, and is garrisoned by one troop of cavalry from that post, which is supposed to be changed frequently. The cause of the abandonment of this post is the gradual exhaustion of the water supply, which has been going on for the past ten years. If no attempt is made to obtain underground water for this post, it is believed that it should be totally abandoned and the small garrison of one troop of cavalry removed.

Fort Huachuca, Ariz.—This post has been for many years considered one of the most salubrious in the department, but during the last year has shown a remarkable number of cases on sick report diagnosed as "diarrhea acute." These cases are found in the cold as well as the hot months. It is difficult to understand what is the cause of this disease. The water supply is derived from flowing driven wells and springs on the reservation, which are so located as to be free of contamination from human habitation or other sources, and which has been habitually considered and reported as good in quality. The continuance of the disease during cold weather after the fruit season would seem to eliminate this cause and leaves the actual origin a matter of uncertainty.

Fort Logan, Colo.—This post, the largest in the department, is garrisoned by a full regiment of infantry and rather overcrowded. Two new modern barracks should be built to properly house the present garrison and give them the sanitary accommodation required by the number of organizations. The buildings now existing are good and appropriate, with the exception of the sinks and urinals of eight companies. These are situated in brick outbuildings, are of the old trough pattern, and are entirely obsolete, insanitary, offensive, and should be replaced by new pattern water-closets and self-flushing urinals. Estimates for these improvements have been recently forwarded, and it is hoped that the amount needed will be promptly appropriated. The hospital is entirely inadequate to the size of the garrison, and requires at times the use of tents to enlarge its accommodations for the sick.

The principal sanitary improvements recently are the new artesian well and the recent enlargement of the band quarters and the guardhouse. This latter was greatly needed, the accommodation for prisoners existing previously being inadequate and causing an overcrowding injurious as to health and morals of the inmates. The post has also very recently been wired and illuminated with electricity, an improvement long recommended by the Medical Department, and one believed to be of great sanitary importance from the elimination of smoke, soot, and odor, and also by improving the quality of air in barracks and quarters at night, from the fact that the numerous lamps are not consuming the oxygen of the air, frequently deficient in crowded barracks. In addition the great increase of cheerfulness in the brilliantly lighted barracks, gymnasium, exchange, etc., has a tendency to keep the soldier at home instead of being driven to the nearest saloon for a bright cheerful place for relaxation.

Whipple Barracks, Ariz.—This post was abandoned about eight years ago and reoccupied April 29, 1902. It is at the present time being rebuilt on a basis of a garrison of four companies of infantry. The new buildings are being constructed of brick and stone in the most substantial manner, with all modern improvements in the way of plumbing, baths, etc. Taken in connection with the remarkably fine climate of this location this post when completed will be one of the most desirable as a place of residence in this department. A new hospital has been authorized and it is believed that work on it will be started soon. The present buildings occupied as men's quarters and hospital are old, dilapidated, and unsuitable, but will be done away with as rapidly as new ones are completed to take their places. All water used for drinking and culinary purposes is boiled.

Fort Wingate, N. Mex.—This small but desirable post has had during the past year rather a smaller proportion of sickness than usual, the active diarrhea and catarrhal troubles being not very numerous. In April the insanitary location and condition of the lavatories, water-closets, and urinals in some of the barracks were noted. Later in the year an appropriation was obtained for new toilet rooms with modern plumbing and fixtures of the best quality, and contracts have been made for their establishment.

DEPARTMENT OF THE MISSOURI.

The item of improper sanitation most frequently commented upon during the year has been the inadequacy of guardhouse accommodations, both as to air space and bathing facilities. The posts at which these insanitary conditions have been most emphasized are Jefferson Barracks, Forts Crook and Leavenworth. The lack of lavatory facilities in the Jefferson Barracks guardhouse has been remedied during the year by the installation of shower baths, additional closets, and urinals.

The barracks at Fort Niobrara are in exceedingly bad repair and insufficiently ventilated. Officers' quarters leak badly during rains. Hospital is in deplorable state of repair; entire estimate for repairs for the year disapproved. A number of low places in vicinity of barracks require filling in, as after rains water stands and breeds many mosquitoes. The quarters occupied by married noncommissioned officers and soldiers are in an exceedingly dilapidated condition and are supplied with ordinary sinks.

The prison buildings at Fort Leavenworth are very inferior. Aside from being obsolete in plan they are wholly inadequate to accommodate properly the large number of prisoners incarcerated therein. The crematory, which has been under trial for some time, has proved satisfactory and is now disposing of all garbage and other dangerous waste.

The guardhouses at Forts Des Moines, D. A. Russell, and Riley are overcrowded. At Jefferson Barracks the barrack accommodation for recruits is insufficient, while the barracks at Fort Washakie have been more or less overcrowded throughout the year. All buildings at Fort Washakie are very much in need of repair. Bathing facilities in all barracks and three of the officers' quarters are inadequate. Quarters occupied by Company L, Eleventh Infantry, absolutely without arrangements for a full bath. Hospital has one bath tub for use of hospital-corps detachment and patients.

The water-closets and bathrooms in the older barracks at Fort Riley are in very bad condition.

The pit latrines in use at Fort Washakie are not satisfactory, and recommendation has been made that they be replaced by dry earth closets; examination of the sanitary reports from this post show that a like recommendation has been made almost monthly for the last ten years.

DEPARTMENT OF THE GULF.

The sanitary conditions of the posts in the department at this time, with two or three exceptions, are very good. The sanitary problems at the three seacoast posts excepted involve the supply of a good, wholesome water for drinking purposes, a good, safe disposal of sewage and refuse, and eradication of disease-bearing mosquitoes as far as possible, and protection against them by screens where their complete destruction is impracticable. These problems are being solved and the sanitary conditions are steadily growing better.

Fort McPherson, Ga.—The hospital proper is in very good repair. The bed capacity is 51 beds. As this post has now the capacity for a full regiment of infantry the erection at an early date of a new modern hospital of at least 60 beds capacity is recommended. There is a very desirable site for such a building near the old and new barracks.

Fort Oglethorpe, Ga.—This post is in excellent sanitary condition.

Fort Morgan, Ala.—The sanitary condition of this post is very good.

Fort Barrancas, Fla.—The sanitary condition appears to be satisfactory. The disposal of garbage and other wastes by burial appears to be temporary; they should be disposed of by crematory or dumping into the sea, if practicable. The eradication of mosquitoes should be made permanent, if practicable. An addition to the hospital should be made to provide adequate quarters for the hospital corps detachment, as it is at present insufficient for the purpose.

Fort De Soto, Fla.—The sanitary conditions appear to be good.

Fort Dade, Fla.—The general sanitary condition had been good previous to the outbreak of an epidemic of typhoid and dengue fevers the latter part of December. It seems probable that the disease was originally brought from Tampa, Fla. The insanitary condition of a part of the island on which Fort Dade is situated and occupied by workingmen of the engineer department has been reported and will be corrected. The sewer system is in good condition and the water supply for drinking purposes is rain water held in cisterns above ground.

Fort Screven, Ga.—Imperfect drainage exists at this post, which is due to the low character of the land on which the post is situated. This will be improved by raising the grade, which is in contemplation. Plans and specifications for a new hospital have been approved.

Key West Barracks, Fla.—The health conditions have been good aside from an outbreak of dengue fever.

Fort Fremont, S. C.—The sanitary condition is reported as good. Where needed, the post has been ditched and drained. New barrack buildings have been recommended, although the present buildings have been repaired and made more inhabitable. A new hospital has been erected during the year.

Fort Moultrie, S. C.—The sanitary condition of the post has not been satisfactory on account of the lack of an adequate supply of water for the sewer system. An artesian well is being bored and it is hoped will provide artesian water for the post. The general health in spite of these defects has been very good.

Fort Caswell, N. C.—The sanitary conditions appear to be fair. Drainage is bad. The many water holes, old wells, and abandoned water tanks, etc., are covered with petroleum once a week. Cistern water is used for potable purposes. General supply is abundant, but brackish and unfit for drinking. Mosquitoes are gradually disappearing from the post.

DEPARTMENT OF THE COLUMBIA.

Boise Barracks, Idaho.—Buildings old but good, new construction contemplated. Dry earth closet system introduced in barracks and hospital. Sewerage in officers' quarters. Pits for remainder of post. Will be remedied by installation of sewer system with reconstruction of post.

Fort Casey, Wash.—Buildings are new and commodious except hospital, its size being inadequate. Flushing water is at times inadequate, but will be remedied by completion of permanent supply. Drinking water good and sufficient in quantity, but contains an excess of chlorides.

Fort Flagler, Wash.—Water supply is very unsatisfactory in quantity and quality. During winter months rain water collected from roofs is used for drinking; for other purposes filtered sea water is used. In summer, drinking water is brought from an artesian well about 12 miles distant by boat. Sea water rapidly corrodes plumbing and is unfit for bathing.

Fort Lawton, Wash.—The guardhouse is inadequate for the number of prisoners confined therein.

Vancouver Barracks, Wash.—Buildings in good condition and well ventilated. New hospital, artillery, and infantry barracks completed. Grounds well policed. Recommendation has been made for a post laundry.

Fort Walla Walla, Wash.—With but two or three exceptions buildings are in poor condition. Recommendation has been made that a bath house be erected and modern water-closets installed.

Fort Worden, Wash.—The quantity of the water supply is sufficient but the quality is poor. A new company is expected to supply the post with water from the Olympic Mountains by May, 1905.

Fort Wright, Wash.—Water supply is good except in summer, when it is contaminated by dross from silver mines. With a battalion garrison the supply was inadequate during summer. The hospital and a number of the barracks are not well drained.

ALASKA.

The average mean enlisted strength of the troops serving in Alaska during the year was 730, composed of infantry, signal corps, and hospital corps, all white. Table I shows the admission, death, and noneffective rates, total and by months, with the prevailing diseases for each month, while Table II exhibits the total movement of sick by posts.

TABLE I.—*Effects of season.*

Month.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases.
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	575	88.70	1.74	2.01	62.61	1.74	1.38	Tonsillitis, 6; acute bronchitis, 4; gastritis, 3.
February	569	47.45	......	1.44	33.39	......	.92	Tonsillitis, 7.
March	568	70.42	......	2.18	31.69	......	.97	No prevailing disease.
April	555	70.27	......	2.06	43.24	......	1.04	Influenza, 3; dyspepsia, 3.
May	559	50.09	1.79	1.68	32.20	1.79	1.06	No prevailing disease.
June	552	45.29	1.81	1.51	25.36	......	.78	Do.
July	769	93.63	......	2.48	36.41	......	1.19	Furuncles, 3.
August	904	66.37	2.21	3.06	34.29	2.21	1.05	Muscular rheumatism, 5.
September	922	67.24	......	2.68	35.79	......	1.24	Diarrhea, 4; dyspepsia, abscess, scabies, and muscular rheumatism, 3 each.
October	923	63.92	......	2.51	35.75	......	1.30	Furuncles, 4; muscular rheumatism, 3.
November	939	74.55	......	2.56	45.80	......	1.48	Coryza, 7; muscular rheumatism, 5; furuncles and bronchitis, 3 each.
December	928	85.14	......	2.78	56.04	......	1.93	Muscular rheumatism, 7; bronchitis and dyspepsia, 5 each; influenza, 3.
Total	730	838.36	6.85	28.24	478.09	5.48	14.89	Muscular rheumatism, 30; coryza, 20; tonsillitis, 19; dyspepsia, 17; furuncles, 16; bronchitis, 15.

TABLE II.—*Influence of station.*

Post.	Mean strength.	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				Prevailing causes of admission.
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.		
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	
Fort Gibbon	130	66	41	....	....	....	....	....	....	2.41	2.25	1.39	1.34	Injuries, 15; alcoholism, furuncles, 6 each; bronchitis, 5; venereal diseases, 4.
Fort St. Michael	104	61	37	....	....	2	2	2	2	1.95	1.10	1.08	.77	Injuries, 14; venereal diseases, 9.
Fort W. H. Seward (Camp Skagway).	181	160	103	4	4	1	1	5	5	3.95	3.04	2.36	1.94	Injuries, 28; venereal diseases, 25; coryza and muscular rheumatism, 11 each; tonsillitis, 10.
Fort Liscum	128	115	64	5	4	2	1	7	5	5.81	5.23	3.04	2.82	Injuries, 38; venereal diseases, 12; tonsillitis, 5; muscular rheumatism, 6; influenza, 4.
Fort Egbert	107	116	61	....	....	....	....	....	....	4.07	2.94	2.06	1.46	Injuries, 30; venereal diseases, 18; alcoholism, 7; muscular rheumatism, 6; abscess, 5.
Fort Davis	80	94	43	1	....	....	....	1	....	2.43	2.16	.93	.71	Injuries, 33; venereal diseases, 15; dyspepsia, 5.
Total	730	612	349	10	8	5	4	15	12	20.63	16.71	10.87	9.04	

Post.	Ratios per 1,000 of mean strength.												Average number of days lost.			
	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
									Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	each case.
Fort Gibbon	507.69	315.38	....	....	....	....	....	....	18.52	17.32	10.70	10.30	6.78	13.35	3.92	7.71
Fort St. Michael	586.54	355.77	....	....	19.23	19.23	19.23	19.23	18.71	10.56	10.38	7.38	6.85	11.67	3.80	6.48
Fort W. H. Seward (Camp Skagway)	883.97	569.06	22.10	22.10	5.53	5.53	27.63	27.63	21.84	16.77	13.06	10.73	7.99	9.01	4.78	5.41
Fort Liscum	898.43	500.00	39.06	31.25	15.62	7.81	54.68	39.06	45.36	40.83	23.78	22.03	16.60	18.48	8.70	9.69
Fort Egbert	1,084.11	570.09	....	....	....	....	....	....	38.05	27.47	19.25	13.66	13.93	12.84	7.05	6.50
Fort Davis	1,175.00	537.50	12.50	....	....	....	12.50	....	30.43	26.95	11.68	8.91	11.14	9.48	4.27	3.64
Total	838.36	478.09	13.70	10.96	6.85	5.48	20.55	16.44	28.24	22.89	14.89	12.39	10.34	12.33	5.45	6.50

From these tables it appears that Alaska was a remarkably healthy station for troops. The admission, death, discharge, and noneffective rates were 838.36, 6.85, 13.70, and 28.24, respectively, as compared with 1,305.83, 6.44, 31.04, and 46.32 for the United States proper. Nearly one-half of the admission and noneffective ratios was the result of injuries, venereal diseases, and alcoholism. The healthiest post was Fort Gibbon, while the least healthful was Fort Egbert. The healthiest month was June, with an admission rate of 25.36, and the least healthful, January, with an admission rate of 62.61.

The next table shows the admissions and deaths for certain special diseases:

	Admitted.	Men represented by the admissions.	Died.	Ratios per 1,000 of mean strength.	
				Admitted.	Died.
Typhoid fever					
Malarial fever	4	2		5.48	
Fever, undetermined	1	1		1.37	
Tuberculosis	5	5	1	6.85	1.37
Venereal diseases	83	69		113.70	
Alcoholism	22	20		30.14	
Frostbite and freezing	6	6		8.22	
Dysentery	3	3		4.11	

The fact that there was no case of typhoid fever, pneumonia, or eruptive fevers is notable. Malarial fever and dysentery were rare, while tuberculosis, venereal diseases, and alcoholism had high rates. It is of interest that the 4 admissions for malaria, representing 2 cases, occurred at Fort Egbert, one of the two posts from which anopheles mosquitoes have been reported as present.

Of the 5 cases of tuberculosis, 1 was developed within three months of enlistment and was probably existent at the time of enlistment; the others had been in service from two to ten years.

The following tables exhibit the movement of sick by age, length of service, and length of service in Alaska:

BY AGE.

Ages.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under	1	1			0.01	1,000.00			13.66
20 to 24 years	236	258	7	4	9.05	1,093.22	29.66	16.95	38.36
25 to 29 years	262	197	1	1	6.32	751.91	3.82	3.82	24.12
30 to 34 years	141	82			3.00	581.56			21.25
35 to 39 years	59	51	2		1.41	864.41	33.90		23.99
40 to 44 years	19	12			.40	631.58			21.28
45 to 49 years	7	8			.36	1,142.86			50.74
50 years and over	5	3			.06	600.00			12.02
Total	730	612	10	5	20.63	838.36	13.70	6.85	28.24

BY LENGTH OF SERVICE.

Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength. Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	115	177	7	1	6.44	1,539.13	60.87	8.70	56.00
1 to 2 years	114	63		1	1.95	552.63		8.77	17.14
2 to 3 years	98	98	1	1	2.54	1,000.00	10.20	10.20	25.93
3 to 4 years	73	57		1	2.07	780.82		13.70	28.33
4 to 5 years	75	56			2.33	746.67			31.04
5 to 10 years	191	119	2	1	3.60	623.04	10.47	5.24	18.87
10 years and over	64	42			1.68	656.25			26.30
Total	730	612	10	5	20.63	838.36	13.70	6.85	28.24

BY LENGTH OF SERVICE IN ALASKA.

Period of service.	Mean strength.	Admissions.	Discharges.	Deaths.	Ratios per 1,000 of mean strength. Admissions.	Discharges.	Deaths.
Under 1 year	438	377	6	1	860.73	13.70	2.28
1 to 2 years	233	178	3	2	763.95	12.87	8.58
Not stated	59	57	1	2	966.10	16.95	33.90
Total	730	612	10	5	838.36	13.70	6.85

The death and discharge rates were the highest for soldiers whose age is included in the five-year period from 20 to 24 years; the highest admission and noneffective rates occurred among men 45 to 49 years of age. The admission, constantly noneffective, and discharge rates were much higher for soldiers in the first year of service; the death rate was based on too small a number of deaths to be of any value. As regards length of service in Alaska the highest admission rate was shown in the first year, but here again the figures were too small to be of value.

SANITATION.

The following data as to the sanitary conditions at the six garrisoned posts were obtained from special reports:

While the barracks at Fort Egbert are inadequate, all new buildings have been completed and are reported to be in excellent condition. The buildings are comfortable and the grounds in good condition at the other posts in Alaska.

The water supply at all the posts is satisfactory in quantity and quality, except at Fort Egbert on the headwaters of the Yukon, where the water is from a well 30 feet deep, delivered in carts, and is reported hard, contaminated by mineral and vegetable matter, and liable to sewage pollution. At Fort William H. Seward the water is piped from the water system of Skagway and is originally taken from a pure mountain lake. The water supply of Fort St. Michael is also piped into post from a mountain lake for use in summer; in winter the water is obtained by melting ice from this same lake. At Fort Gibbon the water is from a well and delivered by water cart; it is boiled only in spring and summer, when it contains considerable organic matter. At Fort Liscum the water is from a glacial stream and delivered by wagon. At Fort Davis, Nome River supplies the water, which is delivered by cart in summer after distillation, but in winter without preliminary purification.

The sandy ground on which Fort Egbert is located absorbs the rain as quickly as it falls, while the post at Fort Gibbon is well drained by means of ditches. The land on which Fort Liscum is built has a gradual slope from the base of the mountain down to the shore of the bay, thus providing ideal conditions for surface drainage. The drainage at Fort St. Michael is unsatisfactory. The rainfall during summer is very large and the ground is difficult of drainage. A system of drains has been dug for the post, but appears to be insufficient in number and not to have sufficient fall to keep the soil drained. As a result of combined dampness of soil and atmosphere, rheumatism and sore throat are very prevalent during the summer season. At Forts William H. Seward and Davis surface drainage is satisfactory, several ditches having been dug extending through the larger part of the latter post.

Excreta are disposed of partly by the cesspool system and partly by dry-earth closets at Fort Egbert, the ultimate disposal being Mission Creek. Liquid wastes are disposed of in like manner. A modification of the dry-earth system is in use at Fort Gibbon. Zinc-lined wooden boxes containing sawdust are used to receive the excreta, which are dumped daily into the river. Separate tin pails are provided for urine. All other wastes are similarly disposed of. At Fort Liscum a system of dry-earth closets is depended upon for the disposal of excreta. The closets are emptied at frequent intervals, the fecal matter being deposited in the bay. A complete sewerage system is very much needed at this post. Other wastes are collected daily and emptied into the bay. The box-privy system is used at Fort St. Michael, lime being used as a disinfectant in and about the boxes. Other wastes and excreta are collected in cans, towed several miles out in the bay, and disposed of. Excreta are deposited in tin-lined boxes at Fort William H. Seward, which are daily emptied into the Skagway River below the town site. Other wastes are collected by police cart and emptied into stream. The excreta at Fort Davis having been received in water-tight receptacles placed in the different latrines are deposited in pits on the beach 2 miles below post, while other wastes are similarly disposed of.

Fort William H. Seward is the only post in Alaska which is reported as being generally free from mosquitoes. At Fort Liscum they appear about the middle of June and remain until the middle of September. The variety is not known, but in appearance they differ from the ordinary mosquito found in temperate climates although of practically the same size. While extremely annoying at times and giving rise to local irritation in many individuals, there is no evidence to connect these insects with the causation and transmission of disease. Anopheles and culex varieties are present at Fort Gibbon during June and July each year, but appear to have no connection with existing diseases. Mosquitoes breed practically everywhere in the vicinity of Fort Egbert, are of the culex and anopheles varieties, and are generally present during the months of June and July. During July and August the harmless culex variety of mosquito is found at Fort Davis, while at Fort St. Michael mosquitoes are very prevalent for several weeks during the summer. The culex species is the only form observed. At no post in Alaska have measures been adopted toward the destruction of the mosquitoes or destroying their breeding places.

CUBA.

The last United States troops were withdrawn from Cuba February 5, 1904. The period of time and the number of troops (four companies) being so small the statistical data are of no importance.

PORTO RICO.

The two companies of coast artillery remaining in Porto Rico at the beginning of the year were withdrawn early in May, since which time that island has been garrisoned by native troops only; the following figures and remarks apply exclusively to the latter.

The mean strength of the Porto Rican regiment was 540 men, distributed to the two stations, San Juan and Henry Barracks, Cayey.

Table I exhibits the movement of sick for the year.

Table I.

PORTO RICAN TROOPS.

Mean strength	540
Admissions to sick report:	
From all causes	767
Excluding injuries, venereal diseases, and alcoholism	472
Discharges on surgeon's certificate of disability:	
From all causes	7
Excluding injuries, venereal diseases, and alcoholism	2
Deaths:	
From all causes	2
Excluding injuries, venereal diseases, and alcoholism	1
Total losses:	
From all causes	9
Excluding injuries, venereal diseases, and alcoholism	3
Noneffective from sickness:	
From all causes—	
Total	33.39
In hospital	32.81
Excluding injuries, venereal diseases, and alcoholism—	
Total	14.75
In hospital	14.40
Ratios per 1,000 of mean strength:	
Admissions to sick report—	
From all causes	1,420.37
Excluding injuries, venereal diseases, and alcoholism	874.07
Discharges on surgeon's certificate of disability—	
From all causes	12.96
Excluding injuries, venereal diseases, and alcoholism	3.70
Deaths—	
From all causes	3.70
Excluding injuries, venereal diseases, and alcoholism	1.85
Total losses—	
From all causes	16.66
Excluding injuries, venereal diseases, and alcoholism	5.55
Noneffective from sickness—	
From all causes—	
Total	61.84
In hospital	60.80
Excluding injuries, venereal diseases, and alcoholism—	
Total	27.31
In hospital	26.68
Average number of days lost:	
From all causes—	
For each soldier	22.6
For each case	15.9
Excluding injuries, venereal diseases, and alcoholism—	
For each soldier	10.0
For each case	11.4

The admission, death, discharge for disability, and noneffective rates were 1,420.37, 3.70, 12.96, and 61.84, respectively, compared with 1,137.09, 22.34, 5.86, and 32.05, the rates for Filipino native troops, and with 1,484.73, 0.00, and 25.95 (noneffective rate not available), their own ratios for 1903. Both admission and discharge figures show an improvement over those for the preceding year.

The following table shows the rates for certain special diseases:

NATIVE TROOPS.

[Mean strength, 540.]

Special diseases.	Admissions.	Deaths.	Ratios per 1,000 of mean strength.	
			Admissions.	Deaths.
Typhoid fever	1		1.85	
Malaria	65		120.37	
Tuberculosis	3		5.55	
Venereal diseases	205	1	379.62	1.85
Alcoholism				
Dysentery	8	1	14.82	1.85
Fevers, undetermined				
Effects of heat				
Beriberi				
Filariasis	4		7.40	
Uncinariasis				

The figures for typhoid fever and malaria, 1.85 and 120.37, were low as compared with the rates for American troops in the Tropics, 1.92 and 220.65, respectively, while the ratios for the Filipino troops were 0.87 and 368.99.

There were two deaths, one the result of syphilis and the other of acute dysentery.

The principal cause of admission was venereal disease, for which the Porto Ricans gave a rate of 379.62, more than twice as great as for any other race.

The next table shows the relative healthfulness of the two posts; it will be noted that there was very little difference.

	San Juan, P. R.	Henry Barracks, Cayey, P. R.
Mean strength [a]	310	219
Admissions to sick report:		
From all causes	453	308
Excluding injuries, venereal diseases, and alcoholism	283	186
Discharges on surgeon's certificate of disability:		
From all causes	2	5
Excluding injuries, venereal diseases, and alcoholism	2	
Deaths:		
From all causes		2
Excluding injuries, venereal diseases, and alcoholism		1
Total losses:		
From all causes	2	7
Excluding injuries, venereal diseases, and alcoholism	2	1
Noneffective from sickness:		
From all causes—		
Total	19.17	14.17
In hospital	18.82	14.00
Excluding injuries, venereal diseases, and alcoholism—		
Total	8.49	5.99
In hospital	8.09	5.91
Ratios per thousand of mean strength:		
Admissions to sick report—		
From all causes	1,461.29	1,406.39
Excluding injuries, venereal diseases, and alcoholism	912.90	849.32
Discharges on surgeon's certificate of disability—		
From all causes	6.45	22.83
Excluding injuries, venereal diseases, and alcoholism	6.45	
Deaths—		
From all causes		9.13
Excluding injuries, venereal diseases, and alcoholism		4.57

[a] Eleven men on field service.

	San Juan, P. R.	Henry Barracks, Cayey, P. R.
Ratios per thousand of mean strength—Continued.		
Total losses—		
From all causes	6.45	31.96
Excluding injuries, venereal diseases, and alcoholism	6.45	4.57
Noneffective from sickness—		
From all causes—		
Total	61.84	64.70
In hospital	60.71	63.93
Excluding injuries, venereal diseases, and alcoholism—		
Total	27.39	27.35
In hospital	26.11	26.97
Average number of days lost:		
From all causes—		
For each soldier	22.6	23.7
For each case	15.5	16.8
Excluding injuries, venereal diseases, and alcoholism—		
For each soldier	10.0	10.0
For each case	6.9	7.1

The following table shows the seasonal prevalence of disease:

Months.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (excluding venereal, etc.)
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	551	99.82	......	63.42	56.26	......	22.17	Influenza, 7 cases; malarial fever, intermittent, 4 cases.
February	550	112.73	......	89.34	67.27	......	31.79	Diseases of the larynx, 5 cases; influenza, 4 cases; malarial fever, intermittent, 4 cases.
March	551	112.53	......	76.42	81.67	......	35.85	Malarial fever, intermittent, 10 cases; acute abscess, phlegmon, 5 cases; influenza, tonsillitis, acute bronchitis, and muscular rheumatism, 3 cases each.
April	552	110.51	......	53.51	68.84	......	27.24	Muscular rheumatism, 5 cases; malarial fever, intermittent, 3 cases; dyspepsia, 3 cases.
May	553	153.71	......	61.32	97.64	......	30.33	Dyspepsia, 10 cases; malarial fever, intermittent, 7 cases; acute diarrhea, 4 cases.
June	445	103.37	......	52.06	62.92	......	25.02	Malarial fever, intermittent, 5 cases; pneumonia, dyspepsia, and muscular rheumatism, 2 cases each.
July	536	97.02	......	35.69	67.16	......	17.27	Malarial fever, intermittent, 9 cases; influenza, 5 cases.
August	547	117.00	......	50.13	65.81	......	22.23	Malarial fever, intermittent, 4 cases; influenza, 3 cases; dyspepsia, 3 cases.
September	545	110.09	......	56.46	82.56	......	30.64	Malarial fever, intermittent, 6 cases; diarrhea, acute, 3 cases; typhoid fever, 1 case.
October	547	115.17	1.83	61.46	67.64	1.83	29.19	Influenza, 7 cases; acute dysentery, 7 cases.
November	549	149.36	......	66.18	83.78	......	29.08	Influenza, 9 cases; malarial fever, intermittent, 6 cases; diarrhea, acute, 5 cases; acute bronchitis and dyspepsia, 3 cases each.
December	550	136.36	1.82	58.60	70.91	......	19.88	Malarial fever, intermittent, 5 cases; diarrhea, acute, 5 cases, influenza, acute, bronchitis, and dyspepsia, 3 cases each.
Total	540	1,420.37	3.70	61.84	874.07	1.85	27.31	

It will be seen that the most healthful month was July, while May was the least so; the unfavorable factors in May appear to have been dyspepsia and malaria.

The next table exhibits the absolute figures for age; owing to the fact that it was impracticable to obtain corresponding mean strength, it was impossible to give ratios for age or data for length of service:

Ages.	Mean strength.[a]	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Noneffective.
19 years and under		6	1		0.58
20 to 24 years		418	2	1	19.14
25 to 29 years		288	4	1	12.53
30 to 34 years		41			.96
35 to 39 years		10			.14
40 to 44 years		3			.07
45 to 49 years					
50 years and over		1			.01
Total		767	7	2	33.39

[a] Not obtainable.

As in the case of American troops, the highest figures were found in men 20 to 24 years of age.

RECRUITING.

The following statement shows the number of Porto Ricans who applied for enlistment during the year 1904, the number accepted, rejected on primary examination, and declined, with ratios per thousand:

	Number.	Ratio per 1,000 of Porto Ricans examined.
Examined	552	1,000.00
Accepted	519	940.22
Rejected on primary examination	29	52.53
Declined	4	7.25

The proportion of recruits accepted was 940.22 per thousand, a proportion much larger than that for either white or colored American recruits. This is accounted for by the fact that the regimental commander was given authority to waive certain physical defects in his discretion.

The next table shows the ages of accepted Porto Rican recruits and the proportion at each age per thousand:

Age.	Number.	Ratio.	Age.	Number.	Ratio.
18 years and under			31 years	13	25.0
19 years			32 years	3	5.8
20 years	1	1.9	33 years	1	1.9
21 years	47	90.6	34 years		
22 years	61	117.5	35 years	3	5.8
23 years	41	79.0	36 years	1	1.9
24 years	83	159.9	37 years		
25 years	73	140.6	38 years	1	1.9
26 years	69	132.9	39 years		
27 years	51	98.3	40 years and over		
28 years	27	52.0			
29 years	24	46.2	Total	519	1,000.0
30 years	20	38.5			

The proportion, 24 years of age and under who enlisted, was 44.9 per cent, compared with 54.2 per cent and 40.9 per cent for white and colored recruits, respectively. No Porto Rican under 20 years of age was enlisted, while 24 years appears to be the age at which the largest number were accepted.

The following statement shows the relation of age to height in the approved Porto Rican candidates, absolute and proportionate numbers:

TABLE A.—*Relation of age to height—Absolute numbers.*

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
5 feet 3 inches and under	......	....	......	......	1	......	1	......	......	......	......	......
5 feet 4 inches	......	....	......	8	6	5	4	5	9	2	3	3
5 feet 5 inches	......	....	1	7	8	10	13	16	10	8	1	5
5 feet 6 inches	......	....	......	10	11	7	19	12	14	14	6	2
5 feet 7 inches	......	....	......	8	10	6	22	16	18	11	7	8
5 feet 8 inches	......	....	......	8	8	5	12	9	9	6	5	5
5 feet 9 inches	......	....	......	3	8	4	7	12	4	6	4	......
5 feet 10 inches	......	....	......	1	4	1	2	2	4	4	......	1
5 feet 11 inches	......	....	......	1	4	......	3	1	1	......	1	......
6 feet and over	......	....	......	1	1	3	......	......	......	......	......	......
Total	......	....	1	47	61	41	83	73	69	51	27	24

Height.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	4 years and over.	Total.
5 feet 3 inches and under	......	....	......	......	......	......	......	......	......	......	......	2
5 feet 4 inches	1	1	......	......	......	......	......	......	1	......	......	48
5 feet 5 inches	2	3	1	......	......	1	......	......	......	......	......	86
5 feet 6 inches	6	2	1	......	......	1	......	......	......	......	......	105
5 feet 7 inches	4	5	......	......	......	1	......	......	......	......	......	116
5 feet 8 inches	5	....	......	1	......	......	1	......	......	......	......	74
5 feet 9 inches	......	....	1	......	......	......	......	......	......	......	......	49
5 feet 10 inches	2	2	......	......	......	......	......	......	......	......	......	23
5 feet 11 inches	......	....	......	......	......	......	......	......	......	......	......	11
6 feet and over	......	....	......	......	......	......	......	......	......	......	......	5
Total	20	13	3	1	......	3	1	......	1	......	......	519

Relation of age to height—Proportional numbers.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
5 feet 3 inches and under	....	....	....	....	16.4	....	12.0	....
5 feet 4 inches	....	....	....	170.2	98.4	122.0	48.2	68.5
5 feet 5 inches	....	....	1000.0	148.9	131.2	243.9	156.6	219.2
5 feet 6 inches	....	....	....	212.8	180.3	170.7	228.9	164.4
5 feet 7 inches	....	....	....	170.2	163.8	146.2	265.1	219.2
5 feet 8 inches	....	....	....	170.2	131.2	122.0	144.6	123.3
5 feet 9 inches	....	....	....	63.8	131.2	97.6	84.3	164.4
5 feet 10 inches	....	....	....	21.3	65.6	24.4	24.1	27.4
5 feet 11 inches	....	....	....	21.3	65.6	....	36.1	13.7
6 feet and over	....	....	....	21.3	16.4	73.2	....	....
Total	....	....	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0

TABLE A—*Relation of age to height—Proportional numbers*—Continued.

Height.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
5 feet 3 inches and under	....	....	....	....	....	....	....	....
5 feet 4 inches	130.4	39.2	111.1	125.0	50.0	76.9	....	....
5 feet 5 inches	144.9	156.9	37.0	208.3	100.0	230.8	333.3	....
5 feet 6 inches	202.9	271.5	222.2	83.3	300.0	153.8	333.3	....
5 feet 7 inches	260.9	215.7	259.3	333.3	200.0	384.6	....	....
5 feet 8 inches	130.4	117.6	185.2	208.3	250.0	....	....	1000.0
5 feet 9 inches	58.0	117.6	148.1	....	....	....	333.3	....
5 feet 10 inches	58.0	78.4	....	41.7	100.0	153.8	....	....
5 feet 11 inches	14.5	....	37.0	....	....	....	....	....
6 feet and over	....	....	....	....	....	....	....	....
Total	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0

Height.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
5 feet 3 inches and under	....	....	....	....	....	....	....	3.9
5 feet 4 inches	....	....	....	....	1000.0	....	....	92.5
5 feet 5 inches	....	333.3	....	....	....	....	....	165.7
5 feet 6 inches	....	333.3	....	....	....	....	....	202.3
5 feet 7 inches	....	333.3	....	....	....	....	....	223.5
5 feet 8 inches	....	....	1000.0	....	....	....	....	142.6
5 feet 9 inches	....	....	....	....	....	....	....	94.4
5 feet 10 inches	....	....	....	....	....	....	....	44.3
5 feet 11 inches	....	....	....	....	....	....	....	21.2
6 feet and over	....	....	....	....	....	....	....	9.6
Total	....	1000.0	1000.0	....	1000.0	....	....	1000.0

The height of the highest proportion of accepted Porto Rican recruits, 22.4 per cent, was 5 feet 7 inches, the same as that for both the white and colored applicants enlisted, while the proportion of those approved under 5 feet 4 inches was only a little more than half that of white and colored recruits, being but 0.39 per cent; the proportion of white and colored recruits over 5 feet 7 inches was, however, much larger than for Porto Ricans. Five Porto Ricans 6 feet and over were taken into the service.

The next table shows the weights of the Porto Rican recruits who were finally approved and the proportion of each weight per thousand; also, the relation of weight to age in both absolute and proportionate numbers.

TABLE B—*Relation of age to weight—Absolute numbers.*

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
99 pounds and under	......	....	......	......	......	......	......	......	......	......	......	......
100 to 109 pounds	......	....	......	......	......	......	......	......	......	......	......	......
110 to 119 pounds	......	....	......	6	6	3	4	1	4	2	3	1
120 to 129 pounds	......	....	......	25	21	12	36	34	23	20	7	11
130 to 139 pounds	......	....	......	13	21	15	24	24	28	17	12	6
140 to 149 pounds	......	....	1	3	6	10	12	11	8	11	2	4
150 to 159 pounds	......	....	......	......	7	1	4	3	4	1	2	1
160 to 169 pounds	......	....	......	......	......	......	3	......	2	......	1	......
170 to 179 pounds	......	....	......	......	......	......	......	......	......	......	......	1
180 to 189 pounds	......	....	......	......	......	......	......	......	......	......	......	......
190 to 199 pounds	......	....	......	......	......	......	......	......	......	......	......	......
200 pounds and over	......	....	......	......	......	......	......	......	......	......	......	......
Total	......	....	1	47	61	41	83	73	69	51	27	24

TABLE B.—*Relation of age to weight—Absolute numbers*—Continued.

Weight.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
99 pounds and under												
100 to 109 pounds												
110 to 119 pounds		1										31
120 to 129 pounds	7	3	1	1		1			1			203
130 to 139 pounds	6	4				1	1					172
140 to 149 pounds	5	3				1						77
150 to 159 pounds	2	1	1									27
160 to 169 pounds		1	1									8
170 to 179 pounds												1
180 to 189 pounds												
190 to 199 pounds												
200 pounds and over												
Total	20	13	3	1		3	1		1			519

Relation of age to weight—Proportional numbers.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
99 pounds and under								
100 to 109 pounds								
110 to 119 pounds				127.7	98.4	73.2	48.2	13.7
120 to 129 pounds				532.0	344.3	292.7	433.8	465.7
130 to 139 pounds				276.6	344.3	365.9	289.2	328.8
140 to 149 pounds			1,000.0	63.8	98.4	243.9	144.6	150.7
150 to 159 pounds					114.8	24.4	48.2	41.1
160 to 169 pounds							36.1	
170 to 179 pounds								
180 to 189 pounds								
190 to 199 pounds								
200 pounds and over								
Total			1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
99 pounds and under								
100 to 109 pounds								
110 to 119 pounds	58.0	39.2	111.1	41.7		76.9		
120 to 129 pounds	333.3	392.2	259.3	458.4	350.0	230.8	333.3	1,000.0
130 to 139 pounds	405.8	333.3	444.5	250.0	300.0	307.7		
140 to 149 pounds	115.9	215.7	74.1	166.7	250.0	230.8		
150 to 159 pounds	58.0	19.6	74.1	41.7	100.0	76.9	333.3	
160 to 169 pounds	29.0		37.0			76.9	333.3	
170 to 179 pounds				41.7				
180 to 189 pounds								
190 to 199 pounds								
200 pounds and over								
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over	Total.
99 pounds and under								
100 to 109 pounds								
110 to 119 pounds								59.7
120 to 129 pounds		333.3			1,000.0			391.1
130 to 139 pounds		333.3	1,000.0					331.4
140 to 149 pounds		333.3						148.4
150 to 159 pounds								52.0
160 to 169 pounds								15.4
170 to 179 pounds								1.9
180 to 189 pounds								
190 to 199 pounds								
200 pounds and over								
Total		1,000.0	1,000.0		1,000.0			1,000.0

A material difference was noted in the weights of accepted Porto Ricans and American-born recruits. The weights of 39.1 per cent, the highest proportion of approved Porto Ricans at all ages, being between 120 and 129 pounds.

These weights were from 10 to 20 pounds less than the corresponding figures for American troops, both white and colored.

This table shows the chest measurement of accepted Porto Rican recruits with ratios per thousand; also, the relation of age to chest measurement in absolute and proportionate numbers:

TABLE C.—*Relation of age to chest measurement—Absolute numbers.*

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
30 inches and under	......	....	......	1	1	2	2	3	2	2	1	......	......	....	......	......	......	......	......	......	......	......	......	14
31 inches	......	....	......	16	10	5	11	9	12	8	3	1	3	1	......	......	......	......	......	......	......	......	......	79
32 inches	......	....	1	21	30	11	36	37	27	19	8	12	6	3	1	......	......	1	......	......	......	......	......	213
33 inches	......	....	......	7	11	12	25	13	15	15	8	7	4	4	......	1	......	......	......	......	......	......	......	122
34 inches	......	....	......	2	9	8	6	9	9	4	5	2	3	3	......	......	......	......	1	......	1	......	......	62
35 inches	......	....	......	......	......	......	3	2	3	2	2	1	4	2	2	......	......	2	......	......	......	......	......	23
36 inches	......	....	......	......	......	3	......	......	1	......	......	1	......	....	......	......	......	......	......	......	......	......	......	5
37 inches	......	....	......	......	......	......	......	......	......	1	......	......	......	....	......	......	......	......	......	......	......	......	......	1
38 inches	......	....	......	......	......	......	......	......	......	......	......	......	......	....	......	......	......	......	......	......	......	......	......	......
39 inches and over	......	....	......	......	......	......	......	......	......	......	......	......	......	....	......	......	......	......	......	......	......	......	......	......
Total	......	....	1	47	61	41	83	73	69	51	27	24	20	13	3	1	......	3	1	......	1	......	......	519

Relation of age to chest measurement—Proportional numbers.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
30 inches and under	....	....	....	21.3	16.4	48.8	24.1	41.1
31 inches	....	....	....	340.4	164.0	122.0	132.5	123.3
32 inches	....	....	1,000.0	446.8	491.8	268.3	433.7	506.8
33 inches	....	....	....	148.9	180.3	292.7	301.2	178.1
34 inches	....	....	....	42.5	147.6	195.1	72.3	123.3
35 inches	....	....	....	....	....	....	36.1	27.4
36 inches	....	....	....	....	....	73.2	....	....
37 inches	....	....	....	....	....	....	....	....
38 inches	....	....	....	....	....	....	....	....
39 inches and over	....	....	....	....	....	....	....	....
Total	....	....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE C—*Relation of age to chest measurement—Proportional numbers*—Continued.

Chest measurement.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
30 inches and under	29.0	39.2	37.0					
31 inches	173.9	156.9	111.1	41.7	150.0	76.9		
32 inches	391.3	372.5	296.3	500.0	300.0	230.8	333.3	
33 inches	217.4	294.1	296.3	291.7	200.0	307.7		1,000.0
34 inches	130.4	78.4	185.2	83.3	150.0	230.8		
35 inches	43.5	39.2	74.1	41.7	200.0	153.8	666.7	
36 inches	14.5			41.7				
37 inches		19.6						
38 inches								
39 inches and over								
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Chest measurement.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
30 inches and under								27.0
31 inches								152.2
32 inches		333.3						410.4
33 inches								235.1
34 inches			1,000.0		1,000.0			119.5
35 inches		666.7						44.3
36 inches								9.6
37 inches								1.9
38 inches								
39 inches and over								
Total		1,000.0	1,000.0		1,000.0			1,000.0

Nearly half of the 519 Porto Ricans accepted for service during the year showed a chest measurement of 32 inches. Below 32 inches the figures were 17.9 per cent compared with 8.8 per cent for American troops, white, and 6.8 per cent for American troops, colored. Porto Rican troops having a chest measurement above 34 inches constitute only 5.6 per cent of the whole, compared with 24.9 per cent and 25.6 per cent, respectively, for American troops, white and colored.

The following statement shows the causes of rejection among Porto Rican candidates examined for enlistment during the year, with ratios per thousand rejected:

Cause of rejection.	Number rejected.	Ratio per 1,000.
Causes not physical	7	241.38
Diseases of the genito-urinary system, nonvenereal	5	172.41
Physical debility	5	172.41
Defects of vision	3	103.45
Hernia	2	68.97
Underweight	2	68.97
Defects of development except as shown in detail	2	68.97
Epidemic disease	1	34.48
Skin disease	1	34.48
Venereal disease	1	34.48
Total	29	1,000.00

The principal causes of rejection (ratios per 1,000) in the order of their relative importance were defects of development, 310.35; diseases of the genito-urinary system, nonvenereal, 172.41; defects of vision, 103.45; hernia, 68.97; and venereal diseases, 34.48. There was no rejection for heart disease, one of the most important causes for rejection among white, colored, and Filipino recruits.

SANITATION.

The only United States troops in Porto Rico at the beginning of the year were two companies of coast artillery; these were withdrawn in May leaving only the Porto Rico Provisional Regiment of Infantry, to which alone the following data apply:

San Juan.—Water supply is sufficient in quantity and of generally good quality. It is recommended that orders, at present in force, in regard to boiling all drinking water be continued.

Henry Barracks.—The surface drainage is reported very defective.

HAWAII.

The mean strength of the troops serving in Hawaii during the year was 204, a number too small to afford an accurate basis of comparison. The only station was Camp William McKinley, Honolulu, and the garrison was composed of two companies of coast artillery, with the usual staff detachments.

The following table exhibits the movement of sick for the year:

HONOLULU, HAWAII.

Mean strength	204
Admissions to sick report:	
From all causes	294
Excluding injuries, venereal diseases, and alcoholism	184
Discharges on surgeon's certificate of disability:	
From all causes	0
Excluding injuries, venereal diseases, and alcoholism	0
Deaths:	
From all causes	2
Excluding injuries, venereal diseases, and alcoholism	2
Total losses:	
From all causes	2
Excluding injuries, venereal diseases, and alcoholism	2
Noneffective from sickness:	
From all causes—	
Total	8.95
In hospital	7.35
Excluding injuries, venereal diseases, and alcoholism:	
Total	5.46
In hospital	4.63
Ratios per 1,000 of mean strength:	
Admissions to sick report—	
From all causes	1,441.17
Excluding injuries, venereal diseases, and alcoholism	901.96
Discharges on surgeon's certificate of disability—	
From all causes	0
Excluding injuries, venereal diseases, and alcoholism	0
Deaths—	
From all causes	9.80
Excluding injuries, venereal diseases, and alcoholism	9.80
Total losses—	
From all causes	9.80
Excluding injuries, venereal diseases, and alcoholism	9.80
Noneffective from sickness—	
From all causes—	
Total	43.86
In hospital	36.04
Excluding injuries, venereal diseases, and alcoholism—	
Total	26.75
In hospital	22.70
Average number of days lost:	
From all causes—	
For each soldier	16.05
For each case	11.14
Excluding injuries, venereal diseases, and alcoholism—	
For each soldier	9.79
For each case	10.85

The admission, death, and noneffective rates were 1,441.17, 9.80, and 43.86, respectively, as compared with 1,305.83, 6.44, and 46.32 for the United States proper. Nearly one-half of the noneffective ratio was for injuries, venereal diseases, and alcoholism.

The following table shows the admission rate for certain special diseases:

AMERICAN TROOPS.

Special diseases.	Admissions.	Deaths.	Ratios per 1,000 of mean strength.	
			Admissions.	Deaths.
Typhoid fever	3	2	14.70	9.80
Malaria	1	....	4.90	....
Tuberculosis		....	....	....
Venereal diseases	33	....	161.76	....
Alcoholism	13	....	63.73	....
Dysentery	7	....	34.31	....
Fevers undetermined	3	....	14.70	....

One case of malarial fever was reported. In view of the statement which has been made that there are no anopheles mosquitoes in Hawaii and that malaria does not originate there, this case is of interest. Unfortunately nothing was stated as to the history of the case. Tuberculosis was notable by its absence. Venereal diseases and alcoholism gave high admission rates, 161.76 and 63.73, respectively, per thousand of mean strength.

The nature of the dysentery and its origin was not stated. The cases of "fevers undetermined" were of interest in connection with reports of a fever neither malarial nor typhoid which is said to occur in Hawaii.

The 2 deaths were due to typhoid fever. There was no discharge for disability.

The following table shows the seasonal prevalence of disease:

Months.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases.
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	186	107.53	......	30.18	43.01	......	10.58	Furuncle, 3.
February	200	145.00	......	53.96	85.00	......	23.79	Constipation, 3; tonsillitis, 2; muscular rheumatism, 2.
March	186	139.78	......	51.16	80.65	......	29.83	Dengue, 5.
April	182	131.86	......	47.25	87.91	......	22.71	Dengue, 4; peritonitis, 2.
May	187	96.26	......	38.64	69.52	......	24.67	Chronic dysentery, 2; pleurisy, 2.
June	193	150.25	......	52.50	113.99	......	33.68	Tonsillitis, 3; abscesses, 3.
July	214	140.18	......	27.58	74.77	......	15.53	Furuncles, 4; acute dysentery, 2.
August	223	107.62	......	40.65	58.30	......	24.01	Varicocele, 3; tonsillitis, 2; acute diarrhea, 2.
September	225	142.22	4.44	50.82	102.22	4.44	36.74	Acute diarrhea, 4; typhoid fever, 3; varicocele, 3.
October	220	145.45	4.55	67.45	100.00	4.55	52.20	Hemorrhoids, 3; acute diarrhea, acute bronchitis, and tonsillitis, each 2.
November	218	59.63	......	31.34	41.28	......	21.41	Acute bronchitis, 2; parasitic diseases of skin, 2.
December	211	80.57	....	35.93	47.39	......	23.08	Parasitic diseases of the skin, 4.
Total	204	1,441.17	9.80	43.86	901.96	9.80	26.75	

It will be noted that the most healthful month was November, with an admission rate of 59.63, and the least healthful, June, with a rate of

150.25 per thousand of strength. There was no one disease occurring in June of sufficient prevalence to explain the difference in the figures for the two periods.

The following tables exhibit the effects of age, length of service, and length of service in Hawaii:

EFFECTS OF AGE.

Ages.	Mean strength.	Admissions.	Discharges on surgeon's certificate of disability.	Deaths.	Constantly noneffective.	Ratios per 1,000 of mean strength. Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under	1	1	....	....	0.01	1,000.00	....	....	13.66
20 to 24 years	71	136	....	2	4.14	1,915.49	....	28.17	58.34
25 to 29 years	86	89	....	....	2.60	1,034.88	....	....	30.28
30 to 34 years	29	47	....	....	1.45	1,620.69	....	....	50.11
35 to 39 years	9	10	....	....	.43	1,111.11	....	....	47.97
40 to 44 years	3	7	....	....	.14	2,333.33	....	....	46.45
45 to 49 years	2	1	....	....	.01	500.00	....	....	2.73
50 years and over	3	3	....	....	.16	1,000.00	....	....	52.82
Total	204	294	....	2	8.95	1,441.17	....	9.80	43.86

EFFECTS OF LENGTH OF SERVICE.

Length of service in the Army.	Mean strength.	Admissions.	Discharges on surgeon's certificate of disability.	Deaths.	Constantly noneffective.	Ratios per 1,000 of mean strength. Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	46	72	....	1	2.22	1,565.22	....	21.74	48.35
1 to 2 years	23	50	....	....	1.50	2,173.91	....	....	65.22
2 to 3 years	40	49	....	1	1.45	1,225.00	....	25.00	36.13
3 to 4 years	18	23	....	....	.83	1,277.77	....	....	46.30
4 to 5 years	16	10	....	....	.30	625.00	....	....	18.61
5 to 10 years	47	75	....	....	2.12	1,595.75	....	....	45.11
10 years and over	14	15	....	....	.53	1,071.43	....	....	37.66
Total	204	294	....	2	8.95	1,441.17	....	9.80	43.86

EFFECTS OF LENGTH OF SERVICE IN HAWAII.

Period of service in Hawaii.	Mean strength.	Admissions.	Discharges on surgeon's certificate of disability.	Deaths.	Ratios per 1,000 of mean strength. Admitted.	Discharged.	Died.
Under 1 year	141	193	....	2	1,368.79	....	14.18
1 year and over	63	101	....	....	1,603.17	....	....
Total	204	294	....	2	1,441.17	....	9.80

As regards age, the highest admission rate occurred in men of 40 to 44 years, the highest death and noneffective ratios in men of 20 to 24 years. As regards length of service the highest admission and noneffective rates appeared in men in their second year of service, while as regards service in Hawaii the highest admission ratio was in men who had been in the island over one year.

SANITATION.

Camp William McKinley.—Buildings and grounds are in good condition. At the hospital wastes are collected in ventilated cesspools which are emptied once or twice a week and contents removed to scows, in which they are carried 3 miles out to sea and dumped. At camp dry-earth closets and cesspools are in use. The former are emptied daily by contractors, contents removed 1¾ miles distant, and used for fertilizing purposes; cesspools are buried under the ground and have never been emptied. Liquid contents absorbed by soil, the solid remaining. Garbage at camp removed by scavengers and fed to pigs. Water supply for both hospital and camp is the city main, fed from reservoirs which collect rain from watersheds of hills back of the city of Honolulu and from artesian wells; quality excellent.

Three cases of typhoid fever occurred at Honolulu, all in the Twenty-eighth Company, Coast Artillery. The surgeon recommended that the mess rooms and kitchens of the two companies be thoroughly screened at once, as the near proximity of the sinks render contamination of the food by flies carrying the typhoid bacillus a probable occurrence. These recommendations were promptly carried out.

CHINA.

The mean strength of the command serving in China during the year was 142 enlisted men, a number too small to afford an accurate basis of comparison. The only station was the United States legation at Pekin, Company B, Ninth U. S. Infantry, constituting the legation guard.

The following table exhibits the movement of sick during the year:

Mean strength	142
Admissions to sick report:	
From all causes	198
Excluding injuries, venereal diseases, and alcoholism	114
Discharges on surgeon's certificate of disability:	
From all causes	....
Excluding injuries, venereal diseases, and alcoholism	....
Deaths:	
From all causes	1
Excluding injuries, venereal diseases, and alcoholism	....
Total losses:	
From all causes	1
Excluding injuries, venereal diseases, and alcoholism	....
Noneffective from sickness:	
From all causes—	
Total	5.29
In hospital	4.70
Excluding injuries, venereal diseases, and alcoholism—	
Total	2.90
In hospital	2.57
Ratios per 1,000 of mean strength:	
Admissions to sick report—	
From all causes	1,394.36
Excluding injuries, venereal diseases, and alcoholism	80.28
Discharges on surgeon's certificate of disability—	
From all causes	....
Excluding injuries, venereal diseases, and alcoholism	....
Deaths—	
From all causes	7.04
Excluding injuries, venereal diseases, and alcoholism	....
Total losses—	
From all causes	7.04
Excluding injuries, venereal diseases, and alcoholism	....

Ratios per 1,000 of mean strength—Continued.	
Noneffective from sickness—	
From all causes—	
Total	37.23
In hospital	33.08
Excluding injuries, venereal diseases, and alcoholism:	
Total	20.45
In hospital	18.07
Average number of days lost:	
From all causes—	
For each soldier	13.6
For each case	9.8
Excluding injuries, venereal diseases, and alcoholism—	
For each soldier	7.5
For each case	9.3

The admission, death, and noneffective rates, were 1,394.36, 7.04, and 37.23, respectively, compared with 1,305.83, 6.44, and 46.32 for the United States proper. There was no discharge for disability.

The next table shows the admission rate for certain special diseases:

AMERICAN TROOPS.

Special diseases.	Admissions.	Deaths.	Ratios per 1,000 of mean strength.	
			Admissions.	Deaths.
Typhoid fever	1		7.04	
Malaria	10		70.42	
Tuberculosis	1		7.04	
Venereal diseases	58		408.45	
Alcoholism	3		21.13	
Dysentery				
Fevers undetermined	25		176.06	

The rates for typhoid and malarial fevers, tuberculosis, venereal diseases, and alcoholism were all high as compared with the United States. Dysentery was notable by its absence. During July, August, and September there were 25 admissions for a fever diagnosed as "fever, remittent, causation undetermined." Concerning this fever the medical officer made the following remarks:

> The cases diagnosed as "fever, remittent, causation undetermined," were an acute illness lasting about four days, apparently infectious, marked by a moderate temperature, usually not above 102°, and general pains about the back, head, and extremities; sometimes initial nausea and vomiting; pulse slow during fever, not above 80 and as low as 58; constipation in every case.
>
> No involvement of the respiratory tract, skin, kidneys, or other organs. Repeated blood examinations were negative for malarial and other organisms, and showed a slight increase in polymorpho nuclear leucocytes. There were no relapses.

The 1 death reported at this station was due to drowning.

The following table shows the seasonal prevalence of disease:

Months.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal, etc.).
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	148	155.41	......	47.95	114.86	......	35.53	Mumps, 10 cases.
February	143	90.91	......	45.58	48.95	......	31.83	Measles, 2 cases.
March	138	115.94	......	47.45	50.73	......	28.75	Measles, 3 cases.
April	138	36.23	......	22.95	7.25	......	6.04	None.
May	136	125.00	......	37.48	51.47	......	11.86	Do.
June	135	59.26	7.40	31.85	37.04	......	6.17	Do.
July	133	135.34	......	25.22	75.19	......	11.40	Fever remittent, cause undetermined, 8 cases.
August	133	165.41	......	34.68	112.78	......	26.92	Fever remittent, cause undetermined, 7 cases; diarrhea, acute, 2 cases.
September	133	135.34	......	26.57	105.26	......	20.30	Fever remittent, cause undetermined, 8 cases; malarial fever intermittent, 2 cases.
October	142	119.72	......	31.58	49.30	......	7.42	Malarial fever intermittent, 2 cases; typhoid fever, 1 case.
November	168	136.90	......	47.42	95.24	......	33.13	Malarial fever intermittent, 4 cases; tonsillitis, 4 cases; influenza, 3 cases.
December	153	117.65	......	44.28	52.29	......	22.77	Acute bronchitis, 2 cases.
Total	142	1,394.36	7.04	37.23	80.28	......	20.45	

Excluding injuries, venereal diseases, and alcoholism, the highest rates were in January and the lowest in April. The cause of the high rate in January appears to have been the occurrence of an epidemic of mumps in that month.

The following tables exhibit the effects of age, length of service, and length of service in China:

EFFECTS OF AGE.

Ages.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly non-effective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly non-effective.
19 years and under	......	......	......	......	......	......	......	......	......
20 to 24 years	42	101	......	......	2.96	2,404.76	......	......	70.51
25 to 29 years	64	59	......	1	1.45	921.87	......	15.62	22.71
30 to 34 years	21	31	......	......	.72	1,476.19	......	......	34.09
35 to 39 years	8	4	......	......	.12	500.00	......	......	15.37
40 to 44 years	2	1	......	......	.01	500.00	......	......	2.73
45 to 49 years	4	1	......	......	.02	250.00	......	......	4.78
50 years and over	1	1	......	......	.01	1,000.00	......	......	8.20
Total	142	198	......	1	5.29	1,394.36	......	7.04	37.23

EFFECTS OF LENGTH OF SERVICE.

Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	14	9	....	......	0.27	642.86	....	....	18.93
1 to 2 years	6	8	....	......	.31	1,333.33	....	....	51.01
2 to 3 years	52	131	....	......	3.63	2,519.23	....	....	69.89
3 to 4 years	17	8	....	......	.10	470.59	....	....	5.95
4 to 5 years	7	9	....	1	.22	1,285.71	....	142.86	32.01
5 to 10 years	38	27	....	......	.70	710.53	....	....	18.40
10 years and over..	8	6	....	......	.06	750.00	....	....	7.17
Total	142	198	....	1	5.29	1,394.36	....	7.04	37.23

EFFECTS OF LENGTH OF SERVICE IN CHINA.

Length of service in China.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Ratios per 1,000 of mean strength.		
					Admitted.	Discharged on surgeon's certificate of disability.	Died.
Under 1 year	14	9	....	......	642.86	....	......
1 year and over..........................	128	189	....	1	1,476.56	....	7.81

As regards age, the highest admission and noneffective rates are shown to have occurred in men of 20 to 24 years. As regards length of service, the highest ratios were in soldiers of from two to three years' service, while as regards length of service in China the highest rates were in those of over one year's service.

SANITATION.

No defect in sanitation was reported during the year.

PHILIPPINE ISLANDS.

American troops.

The mean strength of the command was 11,996, as against 17,523 for 1903. There were 20,246 admissions to sick report, 2 discharges for disability, 105 deaths, and 790.21 men constantly on sick report, equal to rates of 1,687.73, 0.17, 8.75, and 65.88, respectively. Ten deaths occurred in the United States of men whose commands were in the Philippines and who had been invalided home. This would increase the total number of deaths to 115 and the ratio per thousand to 9.59. The discharge rate was of no consequence, as nearly all disabled men are sent to the United States for discharge; all the other rates were considerably lower than for 1903, when they were 2,104.09 for admissions and 14.84 for deaths. The noneffective rate for 1903 is not available.

For 1904 the admission ratio for disease was 1,473.16, for injury

214.57; on the other hand, the death rate for injury, 4.92, was higher than that for disease, 3.83.

The principal causes of admission in order of their relative importance, with ratios per thousand, were venereal diseases 297.42, diarrheal diseases 237.16, malarial fevers 220.65, dengue 60.69, and bronchitis 39.50. Owing to a different arrangement of the statistics last year no comparison with 1903 is possible.

Diarrheal diseases led as causes of death with a ratio of 1.09; typhoid fever, heart disease, tuberculosis, and liver abscess following successively with rates of 0.42, 0.42, 0.25, and 0.25. As, however, many of the seriously ill were invalided home and died there, these figures represent only the deaths which actually occurred in the Philippines. The discharges for disability practically all occurred in the United States. Venereal diseases caused 37 per cent of the total noneffectiveness from disease.

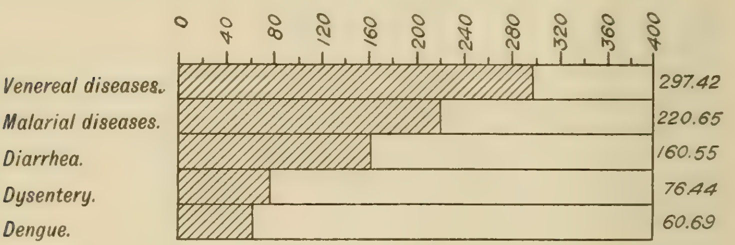
Under external causes there were 62 admissions for gunshot wound with 9 deaths, equivalent to rates of 5.17 and 0.75, respectively; also, 609 admissions for wounds other than gunshot with 12 deaths, the proportions being 50.76 and 1. Nineteen cases of sunstroke without a death indicate that these cases were probably *heat exhaustion* and not *insolation*. Twenty-two deaths from drowning show the necessity for instruction of all enlisted men in swimming. Five soldiers died by suicide.

Deaths among American troops serving in the Philippine Islands.

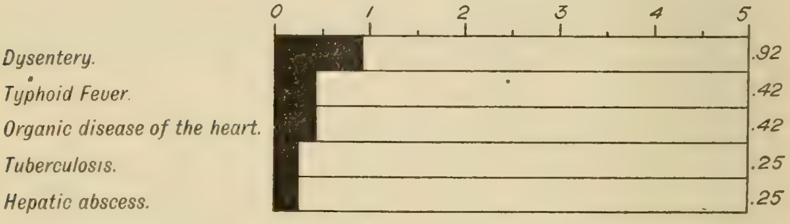
Causes of deaths.	Number of deaths.	Ratios per 1,000 of—	
		Mean strength.	Total deaths.
DISEASES.			
Chronic dysentery	7	0.58	152.17
Typhoid fever	5	.42	108.70
Acute dysentery	4	.33	86.96
Tuberculosis of the lungs	3	.25	65.22
Organic disease of the heart	3	.25	65.22
Hepatic abscess	3	.25	65.22
Malarial fever, pernicious	2	.17	43.48
Smallpox	2	.17	43.48
Acute endocarditis	2	.17	43.48
Enteritis	2	.17	43.48
Bright's disease	2	.17	43.48
Malarial fever, remittent	1	.08	21.74
Purulent infection	1	.08	21.74
Cancer of the pancreas	1	.08	21.74
Cancer of the duodenum	1	.08	21.74
Paralysis	1	.08	21.74
Angina pectoris	1	.08	21.74
Aneurism	1	.08	21.74
Broncho pneumonia	1	.08	21.74
Pneumonia	1	.08	21.74
Acute intestinal obstruction	1	.08	21.74
Acute nephritis	1	.08	21.74
Total	46	3.83	1,000.00
INJURIES.			
Drowning	22	1.83	372.88
Killed in action	21	1.75	355.93
Suicides	5	.42	84.75
Died of wounds received in action	3	.25	50.85
Killed by escaping native prisoner	3	.25	50.85
Shot by sentry	1	.08	16.95
Dislocation cervical vertebræ	1	.08	16.95
Compression of brain (accidental injury)	1	.08	16.95
Acute narcotic poisoning (accidental)	1	.08	16.95
Homicide	1	.08	16.95
Total	59	4.92	1,000.00
Grand total	105	8.75	....

Charts showing the relative admission, death, discharge, and noneffective rates for the five diseases causing the highest rates in the Philippine Islands (white troops).

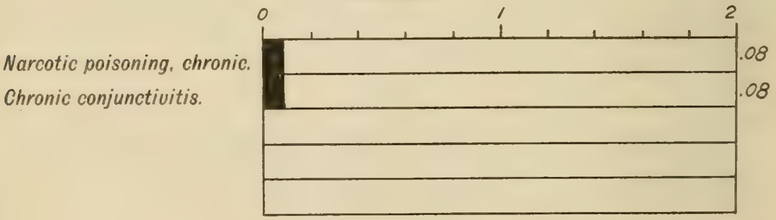
Admissions.



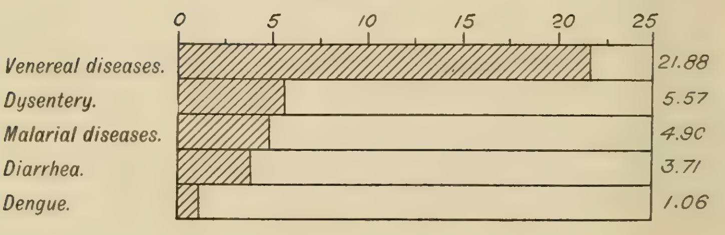
Deaths.



Discharges.



Noneffective.



TYPHOID FEVER.

The admission rate for typhoid fever, 1.92, showed a decided improvement over that for 1903, 4.66. Cases were reported from 15 different posts, 9 in Luzon, 5 in Mindanao, and 1 from Guimaras. Camp Marahui had the largest number of cases, as shown in the following table:

Posts.	Mean strength.	Admissions.	Deaths.
Camp Marahui, Mindanao, P. I	659	5	1
Camp Vicars, Mindanao. P. I	250	3	1
Camp Daraga, Luzon, P. I	364	2	....
Malabang, Mindanao, P. I	488	2	....
Bacon, Luzon, P. I	41	1	....
Bulan, Luzon, P. I	40	1	....
Camp McGrath, Luzon, P. I	423	1	1
Pilar, Luzon, P. I	5	1	....
Parang, Mindanao, P. I	146	1	....
Zamboanga, Mindanao, P. I	229	1	....
Camp Jossman, Guimaras, P. I	749	1	1
Fort Santiago, Manila, P. I	147	1	....
Headquarters Philippines Division, Manila, P. I	4	1	....
Pasay Barracks, Manila, P. I	379	1	....
Division Hospital, Manila, P. I	68	1	1
Total	....	23	5

The following tables show the distribution of cases of typhoid fever by age and length of service:

BY AGE.

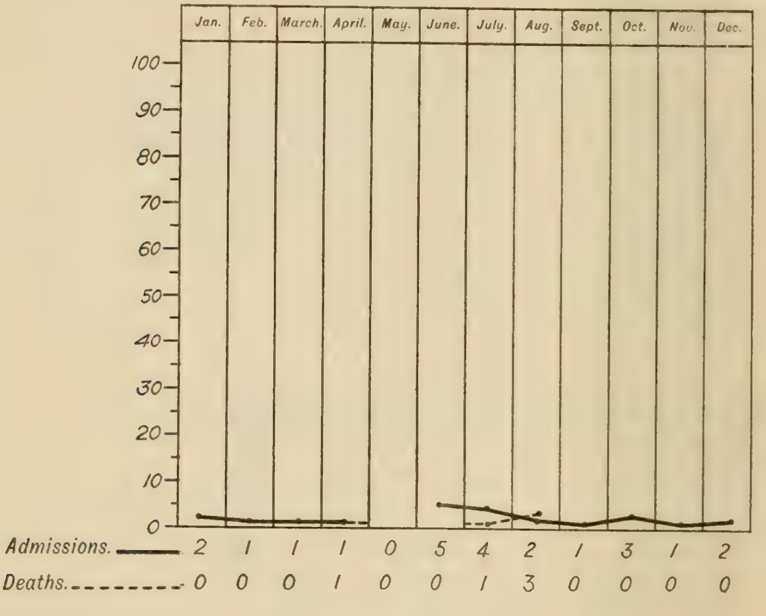
Ages.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under.	29	....	0	......	....	....	0	......	....
20 to 24 years	4,774	7	0	1	1.54	1.47	0	0.21	0.32
25 to 29 years	4,031	10	0	2	1.23	2.48	0	.50	.31
30 to 34 years	1,680	3	0	1	.22	1.79	0	.60	.13
35 to 39 years	835	1	0	......	.10	1.20	0	......	.12
40 to 44 years	387	1	0	......	.24	2.58	0	......	.61
45 to 49 years	171	1	0	1	.04	5.85	0	5.85	.26
50 years and over	89	....	0	0	....	....	0	......	....
Total	11,996	23	0	5	3.37	1.92	0	.42	.28

BY LENGTH OF SERVICE.

Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	3,243	4	0	2	1.12	1.23	0	0.62	0.35
1 to 2 years	1,210	3	0	......	.46	2.48	0	......	.38
2 to 3 years	1,772	4	0	1	.43	2.26	0	.56	.24
3 to 4 years	1,261	2	0	1	.14	1.59	0	.79	.11
4 to 5 years	875	0	0	0	0	0	0	0	0
5 to 10 years	2,513	6	0	......	.70	2.39	0	......	.28
10 years and over	1,122	4	0	1	.52	3.57	0	.89	.46
Total	11,996	23	0	5	3.37	1.92	0	.42	.28

It will be noted that over two-thirds of the cases were in men under 30 years of age, and about one-half in men in their first enlistment.

Chart showing prevalence of typhoid fever among white troops in the Philippine Islands by months.



UNDETERMINED FEVERS.

There were 400 admissions for undetermined fevers, equal to a rate of 33.34 per thousand, as compared with 6.26 for the United States continental. It will be noted that over 50 per cent of these cases occurred in the last quarter of the year.

MALARIAL DISEASES.

There was a decided reduction in the number of admissions for malarial diseases compared with 1903; the ratio was 220.65 per thousand. The highest proportions occurred in the months of March and May. The great majority of cases of malarial fever observed in the Philippine Islands were of the estivoautumnal type; of 464 positive examinations of the blood for malaria at the First Reserve Hospital, Manila, in 1903 and 1904, the parasite was estivoautumnal in 366. There was one admission for hemoglobinuric fever; in this case the parasite was estivoautumnal.

In the Department of Luzon the three stations which suffered most from malaria were Camp Stotsenburg, where the admissions were at the rate of 730 per thousand; Camp Wilhelm, 540 per thousand, and Camp Gregg, 525 per thousand. The three stations which suffered least were Camp Daraga, Camp Wallace, and Malate Barracks. In the Department of the Visayas the disease occurred in the following order of frequency: Camps Jossman, Connell, Warwick, Bumpus, and Downes. In the Department of Mindanao but three stations reported malarial fever as prevalent, and all showed a decided decrease as compared with previous years.

SMALLPOX.

There were but 4 admissions for smallpox, with 2 deaths during the year.

BERIBERI.

One case of beriberi was reported.

ASIATIC CHOLERA.

The 1 case of cholera reported is open to doubt, as it was not bacteriologically confirmed. The last undoubted case among soldiers was in October, 1903. Cholera was officially declared as having disappeared from Manila in February, 1904, and from the provinces in April. Thus was brought to an end an epidemic which began in March, 1902, and the control and termination of which reflects the greatest credit upon medical officers of the Army. Not only did they protect the troops under their charge so effectively that an exceedingly small number were affected, compared with the civilian population among whom they lived, but they everywhere labored unceasingly and to good purpose in the fight against the disease among the natives.

DIARRHEAL DISEASES.

The rates for diarrhea and dysentery, 160.55 and 76.44, showed an improvement over those for 1903. The highest rates for dysentery were found in July, August, and September, while those for diarrhea occurred one month earlier. In the Department of Luzon the stations which furnished the greatest number of cases of dysentery were Camps Daraga, Wilhelm, and Wallace; those which furnished the least, Camps Stotsenburg and McGrath.

DENGUE.

Dengue gave an admission rate of 60.69, with no death.

MALTA FEVER.

There were 2 admissions for Malta fever.

TUBERCULOSIS.

The admission ratio for tuberculosis, 5.41, was a little higher than that for white troops in the United States. As in the United States, more than half of the cases occurred in soldiers in their first enlistment. About 12 per cent were in their first year of service, as shown in the tabulation following:

						Ratios per 1,000 of mean strength.			
Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	3,243	8	0	......	2.39	2.47	0	......	0.74
1 to 2 years	1,210	12	0	......	1.24	9.92	0	......	1.03
2 to 3 years	1,772	18	0	1	3.23	10.16	0	0.56	1.82
3 to 4 years	1,261	6	0	......	1.11	4.76	0	......	.88
4 to 5 years	875	6	0	......	.98	6.86	0	......	1.12
5 to 10 years	2,513	7	0	2	1.05	2.79	0	.80	.42
10 years and over	1,122	8	0	......	1.01	7.13	0	......	.90
Total	11,996	65	0	3	10.98	5.42	0	.25	.92

VENEREAL DISEASES.

A considerable increase was noted in the figures for venereal diseases in the troops on Philippine service over those of the preceding year. The proportions are also much higher than those recorded for the troops in the United States proper, the relative admission rates being 297.42 and 163.42, respectively.

ALCOHOLISM.

The rate for alcoholism, 37.85, was considerably higher than that for the United States, 25.42.

INSANITY.

The relative figures for insanity in the two countries were about the same.

PNEUMONIA.

Pneumonia gave the very low admission rate of 0.58, as compared with 5.37 for the United States.

LIVER DISEASES.

Liver diseases were most prevalent in November. The proportion for the year was 4.83.

OTHER DISEASES.

The following diseases frequently found in certain tropical areas have not thus far been reported from our troops in the Philippines: Relapsing fever, kala-azar, Weil's disease, yaws, epidemic dropsy, pellagra, sleeping sickness, Bilharzia disease, endemic hemoptysis.

The following tables show the movement of sick by islands and departments and of certain special diseases by months:

TABLE A.—*Movement of sick by islands and departments. Absolute numbers.*

Department and island.	Mean strength.	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.			
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										Total.	In hospital.	Total.	In hospital.
Department of Luzon	6,197	11,026	7,433	1	1	30	9	31	10	298.71	250.40	155.92	132.60
Luzon Island	6,187	11,013	7,420	1	1	30	9	31	10	298.51	250.29	155.72	
Mindoro Island	10	13	13							.20	.11	.20	
Department of the Visayas	2,395	3,292	1,771			16	6	16	6	142.85	133.05	60.20	56.05
Guimaras Island	748	1,394	636			2	2	2	2	60.96	59.33	23.73	
Samar Island	669	632	391			6		6		22.95	22.59	10.80	
Leyte Island	501	811	470			2		2		30.34	24.36	13.01	
Cebu Island	259	147	81			4	2	4	2	4.90	4.78	2.96	
Panay Island	218	308	193			2	2	2	2	23.70	21.99	9.71	
Department of Mindanao	3,277	5,712	4,269			45	18	45	18	213.73	181.82	137.67	118.74
Mindanao Island	2,638	4,542	3,395			39	15	39	15	165.21	138.74	108.84	
Jolo Island	573	1,006	733			5	2	5	2	44.80	39.85	25.52	
Siassi Island	32	85	72							2.48	2.16	2.22	
Tawi Tawi Island	29	76	67			1	1	1	1	1.17	1.02	1.03	
Paragua Island	5	3	2							.07	.05	.06	

TABLE A (continued).—*Movement of sick by islands and departments. Proportional numbers.*

Department and island.	Ratios per 1,000 of mean strength.												Average number of days lost.			
	Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
									From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Department of Luzon	1,779.25	1,199.45	0.16	0.16	4.84	1.45	5.00	1.61	48.20	40.41	25.17	21.40	17.64	9.91	9.21	7.67
Luzon Island	1,780.02	1,199.28	.16	.16	4.85	1.45	5.01	1.61	48.25	40.45	25.17	....	17.66	9.92	9.21	7.68
Mindoro Island	1,300.00	1,300.00	....	....	....	....	....	....	19.94	11.20	19.94	....	7.30	5.62	7.30	5.62
Department of the Visayas	1,374.53	739.45	....	....	6.68	2.51	6.68	2.51	59.65	55.65	25.14	23.40	21.83	15.88	9.20	12.44
Guimaras Island	1,863.64	850.27	....	....	2.67	2.67	2.67	2.67	81.50	79.32	51.73	....	29.83	16.00	11.61	13.63
Samar Island	944.69	584.46	....	....	8.97	....	8.97	....	34.31	33.77	16.15	....	12.56	13.30	5.91	10.12
Leyte Island	1,618.76	938.12	....	....	3.99	....	3.99	....	60.57	48.62	25.98	....	22.16	13.69	9.51	10.13
Cebu Island	567.57	312.74	....	....	15.44	7.72	15.41	7.72	18.93	18.27	11.44	....	6.93	12.20	4.19	13.38
Panay Island	1,112.84	885.32	....	....	9.17	9.17	9.17	9.17	108.71	100.89	41.55	....	39.79	28.16	16.31	18.42
Department of Mindanao	1,743.06	1,302.72	....	....	13.73	5.49	13.73	5.49	65.22	55.48	42.01	36.31	23.87	13.87	15.38	11.80
Mindanao Island	1,721.76	1,286.96	....	....	14.78	5.69	14.78	5.69	62.63	52.60	41.26	....	22.92	13.31	15.10	11.73
Jolo Island	1,755.67	1,279.25	....	....	8.73	3.49	8.73	3.49	78.18	69.55	44.53	....	28.61	16.30	16.30	12.74
Siassi Island	2,656.25	2,250.00	....	....	....	....	....	....	77.53	67.54	69.33	....	28.40	10.68	25.37	11.28
Tawi-Tawi Island	2,620.69	2,310.34	....	....	34.48	34.48	34.48	34.48	40.32	35.05	35.71	....	14.76	5.63	13.07	5.65
Paragua Island	600.00	400.00	....	....	....	....	....	....	13.66	9.83	11.47	....	5.00	8.33	4.20	10.50

TABLE B.—*Special diseases by months.*

Month.	Cholera.	Typhoid fever.	Malaria.	Fevers undetermined.	Beriberi.	Dysentery.	Diarrhea (including enteritis).	Liver diseases.
ADMISSIONS.								
January		2	176	25		80	160	8
February		1	215	11		56	112	5
March		1	287	14		59	131	3
April	1	1	216	8		73	143	6
May			276	18		63	193	3
June		5	234	26		70	217	4
July		4	200	20		97	286	1
August		2	209	26		104	259	9
September		1	183	69		104	169	3
October		3	181	75		87	104	6
November		1	248	72	1	60	67	9
December		2	222	36		64	85	1
Total	1	23	2,647	400	1	917	1,926	58
DEATHS.								
January						2		
February						1		
March						1		1
April		1				2		
May							1	1
June						2		
July		1	1			1		1
August		3				2		
September								
October			1					
November			1					
December							1	
Total		5	3			11	2	3
Ratios per 1,000 of mean strength.								
ADMISSIONS.								
January		.15	13.18	1.87		5.99	11.98	.60
February		.07	15.98	.82		4.16	8.32	.37
March		.08	23.43	1.14		4.82	10.70	.24
April	.09	.09	18.47	.68		6.24	12.23	.51
May			23.38	1.53		5.34	16.35	.03
June		.44	20.52	2.28		6.14	19.03	.35
July		.34	16.98	1.70		8.24	24.28	.08
August		.17	17.54	2.18		8.73	21.74	.76
September		.09	15.57	5.87		8.85	14.38	.26
October		.25	15.34	6.36		7.38	8.82	.51
November		.09	21.71	6.30	.09	5.25	5.86	.79
December		.18	19.61	3.18		5.65	7.51	.09
Total	.08	1.92	220.66	33.34	.08	76.44	160.55	4.84
DEATHS.								
January						.15		
February						.07		
March						.08		.08
April		.09				.17		
May							.01	.01
June						.18		
July		.08	.08			.08		.08
August		.25				.17		
September								
October			.08					
November			.09					
December							.09	
Total		.42	.25			.92	.17	.25

Of the departments Luzon had the highest admission rate for all causes and the lowest death and noneffective rates; the Visayas had the lowest admission ratio for all causes, and the lowest admission rate, excluding injuries, venereal diseases, and alcoholism; Mindanao had the highest admission rate, excluding injuries, venereal diseases, and alcoholism, the highest death and the highest noneffective ratios.

Leaving out of consideration the islands with comparatively small mean strength, the island of Guimaras had the highest admission figure for all causes and the lowest death rate; the island of Cebu had the lowest admission ratio for all causes, and excluding injuries, venereal diseases, and alcoholism, and the highest death rate; the island of Mindanao had the highest admission rate, excluding injuries, venereal diseases, and alcoholism, and the second highest death rate; the island of Panay had the highest noneffective ratio for all causes, while Samar had the lowest.

Taking the ten largest posts as shown in International Table No. V, the post having the highest admission rate was Camp Stotsenburg, Luzon, and the next highest Zamboanga, Mindanao; the lowest admission ratio, Camp Warwick, Cebu, and the next lowest, Camp Connell, Samar. The highest proportion of deaths was noted at Zamboanga, Mindanao; the next highest at Camp Warwick, Cebu, and the lowest at the Manila posts.

In considering these figures it is to be borne in mind that troops were actively engaged on the islands of Mindanao and Jolo during the year.

Excluding injuries, venereal diseases, and alcoholism, the highest admission rate occurred in June, the highest death and noneffective ratios in July; the lowest admission, death, and noneffective figures were noted in February.

Taking six month periods, the highest admission rates occurred from May to October, inclusive, and the highest noneffective rates from June to November, corresponding roughly with the rainy season; the highest death ratios, however, belong to the period from March to August, inclusive.

INFLUENCE OF SEASON.

	Mean strength.	All causes.			Excluding venereal diseases, alcoholism, and injuries.			Prevailing diseases.
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	13,352	133.31	0.52	62.31	84.46	0.15	34.38	Malarial fevers, 176; acute diarrhea, 144; dysentery, 80.
February	13,458	109.60	.59	56.18	67.91	.15	28.87	Malarial fevers, 215; acute diarrhea, 103; dysentery, 56.
March	12,249	133.24	.41	58.42	88.74	.24	30.73	Malarial fevers, 287; acute diarrhea, 115; dysentery, 59.
April	11,696	138.85	.60	61.23	92.77	.43	33.25	Malarial fevers, 216; acute diarrhea, 134; dysentery, 73.
May	11,803	153.01	1.44	66.68	103.87	.17	35.33	Malarial fevers, 276; acute diarrhea, 180; dengue, 92.
June	11,404	166.26	.53	72.16	119.78	.44	42.68	Malarial fevers, 234; acute diarrhea, 196; dengue, 131.
July	11,778	160.89	1.36	72.57	114.88	.85	43.13	Acute diarrhea, 256; malarial fevers, 200; dysentery, 92.
August	11,914	154.78	.92	73.64	109.79	.67	43.11	Acute diarrhea, 237; malarial fevers, 209; dysentery, 104.
September	11,751	154.62	.51	73.36	106.29	.17	42.74	Malarial fevers, 183; acute diarrhea, 134; dysentery, 104.
October	11,796	141.23	.42	68.74	96.56	.25	37.76	Malarial fevers, 181; dysentery, 87; acute diarrhea, 82.
November	11,425	129.10	.88	66.66	84.29	.18	36.45	Malarial fevers, 248; dysentery, 60; acute diarrhea, 52.
December	11,321	118.01	.62	60.42	73.40	.18	31.03	Malarial fevers, 222; acute diarrhea, 66; dysentery, 64.
Total	11,996	1,687.73	8.75	65.88	1,137.88	3.83	36.51	Malarial fevers, 2,647; acute diarrhea, 1,699; dysentery, 917.

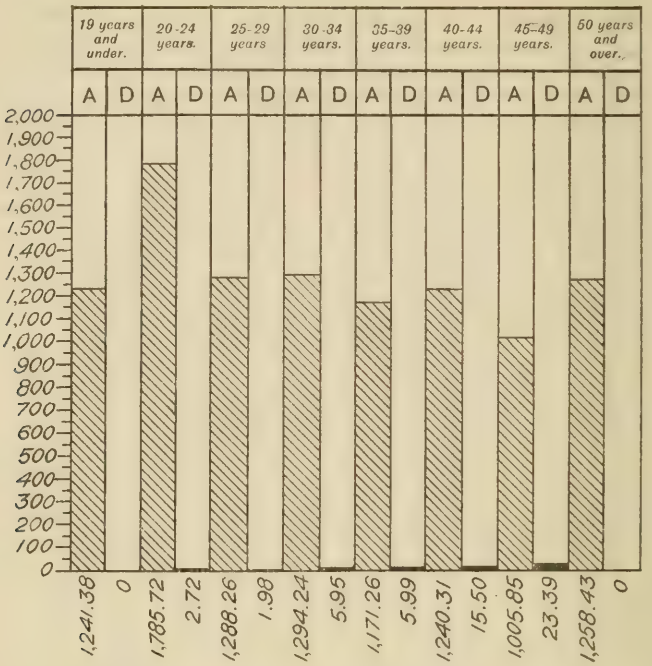
INFLUENCE OF AGE.

Age.	Mean strength.	Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.	Ratios per 1,000 of mean strength.		
					Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.
19 years and under	29	36	....	....	1,241.38	....	....
20 to 24 years	4,774	8,525	1	13	1,785.72	0.21	2.72
25 to 29 years	4,031	5,193	....	8	1,288.26	....	1.98
30 to 34 years	1,680	2,176	1	10	1,295.24	.60	5.95
35 to 39 years	835	978	....	5	1,171.26	....	5.99
40 to 44 years	387	480	....	6	1,240.31	....	15.50
45 to 49 years	171	172	....	4	1,005.85	....	23.39
50 years and over	89	112	....	....	1,258.43	....	....
Total	11,996	17,672	2	46	1,473.16	.17	3.83

INFLUENCE OF LENGTH OF SERVICE.

Length of service.	Mean strength.	Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.	Ratios per 1,000 of mean strength.		
					Admissions for disease.	Discharges on surgeon's certificate of disability.	Deaths from disease.
Under 1 year	3,243	3,118	1	8	961.45	0.31	2.47
1 to 2 years	1,210	2,291	....	1	1,893.39	....	.83
2 to 3 years	1,772	4,757	....	6	2,684.54	....	3.39
3 to 4 years	1,261	1,406	....	3	1,114.99	....	2.38
4 to 5 years	875	1,394	....	1	1,593.14	....	1.14
5 to 10 years	2,513	3,393	1	12	1,350.18	.40	4.77
10 years and over	1,122	1,313	....	15	1,170.23	....	13.37
Total	11,996	17,672	2	46	1,473.16	.17	3.83

Chart showing the relation of ages to admissions and deaths for disease in the Philippine Islands (white).



It will be seen that the highest admission and the lowest death rates from disease occurred in soldiers under 30 years of age, while the lowest admission and the highest death ratios are recorded in men of from 45 to 49 years.

According to length of service the highest admission rate occurred in soldiers of from two to three years' service, and the lowest in those of less than one year's service; the highest death ratio in men whose service aggregated ten years and over, and the lowest in those in the second year of service.

INVALIDED HOME.

The number of enlisted men invalided from the Philippine Islands in 1904 was 467, giving an invaliding ratio of 38.93 per thousand as against 56.44 for the previous year.

As in 1903, diarrheal diseases, tuberculosis, and venereal diseases led as causes of invaliding, the three classes of disease causing over 54 per cent of the total. Next in order of importance were injuries, insanity, and diseases of the ear. Of those sent home 10, or 2.14 per cent, died, 4 of them while en route; 12.42 per cent were discharged for disability; 23.98 per cent were returned to duty, and 44.32 per cent were remaining at the end of the year, as exhibited in the statement following:

Causes.	Number of cases.	Percentage of total cases.	Remaining Dec. 31.	Duty.	Surgeon's certificate of disability.	Expiration of service.	Transfer to Government Hospital for Insane.	Died.	Deserted.	Otherwise.
Dysentery	112	23.98	49	44	3	9		3	3	1
Tuberculosis	53	11.35	45	1	2	4		1		
Venereal diseases	48	10.28	6	13	13	14	1		1	
Diarrhea, including enteritis	41	8.78	21	13		5		1	1	
Injuries	35	7.49	18	5	10	2				
Insanity	21	4.50	6	1			13	1		
Diseases of the nervous system other than those specified	15	3.21	12		1	2				
Diseases of the ear	14	3.00	2	1	10	1				
Diseases of the digestive system other than those specified	14	3.00	5	5	1	2		1		
Organic diseases of the heart	13	2.78	3	1	4	3		2		
Diseases of the respiratory system other than those specified	12	2.57	5	3	2	1				1
Chronic articular rheumatism	12	2.57	5	3	2	2				
Neurasthenia	10	2.14	2	4	2	2				
Gastritis	9	1.93	3	4		1			1	
Diseases of the skin	8	1.71	4	2	1	1				
Malarial diseases	7	1.50	3	2		2				
Diseases of organs of locomotion	7	1.50	4		2	1				
Diseases of the eye	7	1.50	2	2	3					
Diseases of the circulatory system other than those specified	7	1.50	6			1				
Neuritis	6	1.28	2	2	1	1				
General diseases, not epidemic, other than those specified	3	.64		1	1	1				
Diseases of the genito-urinary system	3	.64		2		1				
Typhoid fever	2	.43					1	1		
Unclassified diseases	2	.43	2							
Bright's disease	2	.43	1	1						
Congenital malformations	2	.43	1							1
Epidemic diseases other than those specified	1	.21		1						
Chronic alcoholism	1	.21		1						
Total	467	100.00	207	112	58	56	15	10	6	3

Filipino troops.

With a mean strength of 4,610 there were 5,242 admissions to sick report, 27 discharges for disability, 103 deaths, and 147.74 men constantly noneffective, equivalent to rates of 1,137.09, 5.86, 22.34, and 32.05, respectively, as compared with 1,372.32, 10.23, and 21.51 for 1903. All the proportions were therefore lower except the death rate, which was slightly higher. Two-thirds of the death rate was due to injury, nearly all casualties in action.

The principal causes of admission for diseases in order of their relative importance, with ratios per thousand, were malarial fevers 368.99, diarrheal diseases 94.36, beriberi 74.62, venereal diseases 67.25, and bronchitis 57.70. Malarial fevers, diarrheal diseases, and beriberi showed a decided improvement over the figures for 1903, which were 531.22, 121.31, and 128.21, respectively. Venereal diseases have increased, the rate for 1903 being 55.55.

Tuberculosis had first place among diseases as a cause of death, with a rate of 2.82; beriberi, typhoid fever, malarial fevers, and diarrheal diseases follow in regular order, with rates of 1.52, 0.65, 0.43, and 0.22, respectively. The death ratio for tuberculosis was more than three times greater than for 1903, while the rate for beriberi was less than one-third; the former disease caused 35.29 per cent of all deaths from disease and the latter 20.52 per cent.

The principal causes of discharge were tuberculosis, rate 2.60, and beriberi, rate 1.30. A study of the following table shows that only 3 out of the total of 27 discharges were for disabilities not in the line of duty; only 1 discharge was for injury. Tuberculosis and beriberi caused 69 per cent of all the discharges for disease:

Discharges for disability, Filipino troops.

	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharges for disability within 3 months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
General diseases:							
Tuberculosis	12	46.15	12	....	....	....	....
Beriberi	6	23.08	6	....	....	....	....
Leprosy	1	3.85	1	....	....	....	....
Syphilis, secondary	1	3.85	....	....	1	....	....
General anemia	1	3.85	....	1	....	....	....
Total	21	80.77	19	1	1	....	....
Diseases of the eye (keratitis, 1; iritis, 1)	2	7.69	2	....	....	....	....
Diseases of the digestive system (hernia)	1	3.85	1	....	....	....	....
Diseases of the skin (mycetoma)	1	3.85	1	....	....	....	....
Old age, and results	1	3.85	....	1	....	....	....
Total	26	100.00	23	2	1	....	....
Injuries (fracture)	1	100.00	1	....	....	....	....
Grand total	27	100.00	24	2	1	....	....

There were 525 admissions, 1 discharge, 68 deaths, and 13.49 constantly noneffective from external causes, equal to ratios of 113.88, 0.22, 14.75, and 2.93, respectively. There were 24 admissions for wounds, gunshot, with 11 deaths, equal to rates of 5.21 and 2.39, and 141 admissions for wounds other than gunshot, with 47 deaths, equal to rates of 30.59 and 10.20. Fifty-six men were killed in action and 25 wounded, equivalent to proportions of 12.15 and 5.42, respectively. Of the former, 5 were by gunshot, and of the latter, 17 were by gunshot. There were 2 cases of sunstroke, and no death by drowning. There were 2 suicides.

Deaths, Filipino troops.

Cause of death.	Number of deaths.	Ratios per 1,000 of—	
		Mean strength.	Total deaths.
DISEASES.			
Tuberculosis of the lungs	13	2.82	371.45
Beriberi	7	1.52	200.00
Typhoid fever	3	.65	85.72
Malarial fever, pernicious	2	.43	57.13
Hemorrhage, cause unknown	1	.22	28.57
Purpura hemorrhagica	1	.22	28.57
Smallpox	1	.22	28.57
Acute dysentery	1	.22	28.57
Pneumonia	1	.22	28.57
Bright's disease	1	.22	28.57

Deaths, Filipino troops—Continued.

Cause of death.	Number of deaths.	Ratios per 1,000 of— Mean strength.	Ratios per 1,000 of— Total deaths.
DISEASES—continued.			
Gonorrheal endocarditis	1	0.22	28.57
Gangrene of the lungs	1	.22	28.57
Carbuncle	1	.22	28.57
Unknown	1	.22	28.57
Total	35	7.59	1,000.00
INJURIES.			
Killed in action	56	12.15	823.53
Drownings	5	1.08	73.53
Gunshot wounds (all accidental)	4	.87	58.82
Suicides (gunshot)	2	.43	29.41
Fractures (of skull)	1	.22	14.71
Total	68	14.75	1,000.00
Grand total	103	22.34	....

Excluding venereal diseases, alcoholism, and injuries, which are practically independent of seasonal influences, the highest admission figure was recorded in May, the lowest in December; the highest death rate in December, the lowest in June; the highest noneffective rate in January, the lowest in November; the six-months period from April to September, inclusive, had a much higher admission ratio and a considerably lower death ratio than the remaining six months.

Effects of season.

Month.	Mean strength.	All causes.			Excluding venereal diseases, alcoholism, and injuries.			Prevailing diseases.
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffec	
January	4,775	82.09	1.05	40.21	69.74	0.84	33.51	Malarial fevers, 88; beriberi, 50; acute diarrhea, 19.
February	4,679	83.98	1.50	35.14	69.88	.64	27.83	Malarial fevers, 98; beriberi, 50; acute bronchitis, 22.
March	4,868	81.76	1.64	33.05	69.43	.82	26.45	Malarial fevers, 120; beriberi, 35; acute diarrhea, 23.
April	4,531	100.20	.66	32.55	84.09	.44	26.38	Malarial fevers, 159; beriberi, 30; acute diarrhea, 26.
May	4,754	114.43	.84	31.58	98.66	.63	25.44	Malarial fevers, 215; beriberi, 24; acute diarrhea, 26.
June	4,805	106.76	.42	29.67	91.99	.42	24.10	Malarial fevers, 193; acute diarrhea, 42; acute bronchitis, 32.
July	4,771	109.76	1.26	32.99	90.70	.63	25.87	Malarial fevers, 175; acute bronchitis, 39; acute diarrhea, 32.
August	4,939	99.41	.61	33.37	85.24	.40	26.04	Malarial fevers, 155; beriberi, 36; acute diarrhea, 31.
September	4,754	99.08	2.31	34.40	79.30	1.26	27.11	Malarial fevers, 140; acute diarrhea, 35; acute bronchitis, 28.
October	4,046	87.74	1.24	27.11	67.23	.99	20.27	Malarial fevers, 120; acute diarrhea, 25; acute bronchitis, 22.
November	4,129	89.13	2.18	25.81	76.53	....	21.01	Malarial fevers, 143; acute diarrhea, 22; beriberi, 20.
December	4,258	79.61	9.39	26.62	68.34	.23	21.94	Malarial fevers, 95; acute diarrhea, 32; beriberi, 27.
Total	4,610	1,137.09	22.34	32.05	951.45	7.38	25.64	Malarial fevers, 1,701; beriberi, 344; acute diarrhea, 334.

KILLED AND WOUNDED IN ACTION.

Fifty-six enlisted men were killed in action and 25 wounded. This unusual proportion of killed to wounded is explained by the fact that 47 of the dead were killed by cutting weapons in hand-to-hand fighting; of the 25 wounded in 9 the wounds were from cutting weapons, and 16 from gunshot. One scout officer was killed and none wounded.

A.—*Killed in action by gunshot.*

Character and location of wound.	Missile.			Total.
	Krag.	Springfield.	Unknown.	
Head, fracture		2		2
Neck	1	1		2
Thorax, penetrating			1	1
Total	1	3	1	5

B.—*Killed in action by wounds other than gunshot.*

Character and location of wound.	Bolo.
Head, fracture	3
Neck	2
Thorax, penetrating	3
Abdomen, penetrating	2
Wound not described	37
Total	47

NOTE.—Four men fell in action whose bodies were not recovered in time to determine the location of their wounds or the weapon used.

C.—*Gunshot wounds received in action* (*exclusive of killed in action*).

Character and location of wound.	Nature of missile.								Disposition.			
	Remington.	Krag.	Mauser.	Springfield.	Slug from lantaca.	Fragment of bullet.	Unknown.	Total.	Duty.	Expiration of service.	Remaining.	Total.
Head, flesh	1							1	1			1
Face, flesh						1		1	1			1
Face, fracture	1	1	1					3	3			3
Thorax, nonpenetrating					1			1	1			1
Abdomen, nonpenetrating	1							1		1		1
Arm, flesh			1			1		2	2			2
Elbow joint					1			1			1	1
Forearm, flesh							1	1	1			1
Hand, fracture			1					1	1			1
Thigh, flesh				1				1	1			1
Thigh fracture, middle third				1				1	1			1
Leg, flesh	2							2	2			2
Total	5	1	3	2	2	2	1	16	14	1	1	16

D.—*Wounds other than gunshot received in action (exclusive of killed in action).*

Character and location of wound.	Nature of weapon.				Disposition.		
	Bamboo spear.	Bolo.	Dagger.	Total.	Duty.	Remaining.	Total.
Head, flesh	1			1	1		1
Thorax, nonpenetrating		2		2	1	1	2
Back, flesh			1	1	1		1
Shoulder, flesh		1		1	1		1
Arm, flesh		1		1	1		1
Forearm, flesh		1	1	2	2		2
Hand, fracture		1		1		1	1
Total	1	6	2	9	7	2	9

RECRUITING.

In this table is shown the results obtained from the examination of Filipino applicants for enlistment during the year, in both absolute and proportional numbers:

	Number.	Ratio per 1,000 of Filipinos examined.
Examined	4,185	1,000.00
Accepted	3,845	918.76
Rejected on primary examination	294	70.25
Declined	46	10.99

The number of enlistments among Filipinos during 1904 was far in excess of the accepted applicants for the preceding year, yet the ratio per thousand of those enlisted varied but little for the two years, being 938.31 and 918.76 for 1903 and 1904, respectively. These rates are also very high when compared with those of white and colored recruits, whose respective ratios of approved candidates for the past year were 658.2 and 665.6 per thousand of each class examined. This is explained by the fact that the Filipino recruits were not required to come up to the physical standard used in the Regular Army.

The following statement shows the ages of all accepted Filipino recruits and the proportion at each age per thousand:

Ages.	Number.	Ratio.	Ages.	Number.	Ratio.
18 years and under	51	13.3	31 years	96	25.0
19 years	45	11.7	32 years	61	15.9
20 years	70	18.2	33 years	63	16.4
21 years	590	153.4	34 years	40	10.4
22 years	551	143.3	35 years	23	6.0
23 years	419	109.0	36 years	12	8.1
24 years	460	119.6	37 years	10	2.6
25 years	350	91.0	38 years	19	4.9
26 years	245	63.7	39 years	13	3.4
27 years	191	49.7	40 years and over	34	8.8
28 years	220	57.2			
29 years	158	41.1	Total	3,845	1,000.0
30 years	124	32.2			

The proportion of approved candidates for enlistment under 24 years of age is 56.8 per cent for the year 1904, 96, or 2.5 per cent, of which were under 20 years of age at time of entry into service, while 21 years is the age at which the largest number were accepted.

In this table is shown in both absolute and proportional numbers the relation of age to height of accepted Filipino recruits:

TABLE A.—*Relation of age to height—Absolute numbers.*

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
4 feet 10 inches and under	2	1	1	5	3	2	4	2	3	2	.....	2
4 feet 11 inches	.....	2	.....	14	8	4	3	4	6	3	3	2
5 feet	2	1	1	19	22	17	21	8	11	4	6	8
5 feet 1 inch	6	8	9	75	58	40	49	39	27	15	27	19
5 feet 2 inches	11	5	13	114	107	78	75	56	32	29	33	19
5 feet 3 inches	10	8	16	100	119	78	77	71	40	36	39	30
5 feet 4 inches	8	9	11	111	98	77	82	65	38	47	45	29
5 feet 5 inches	7	6	8	72	66	52	74	45	40	23	27	18
5 feet 6 inches	2	2	5	48	46	31	41	35	21	18	27	18
5 feet 7 inches	1	2	4	18	16	22	22	17	15	9	7	4
5 feet 8 inches	2	....	1	8	3	12	5	4	10	2	4	7
5 feet 9 inches	.....	....	.....	4	4	4	4	3	1	2	2	2
5 feet 10 inches	.....	....	.....	1	.....	2	1	.....	1	1	.....	.....
5 feet 11 inches and over	.....	1	1	1	1	.....	2	1	.....	.....	.....	.....
Total	51	45	70	590	551	419	460	350	245	191	220	158

Height.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
4 feet 10 inches and under	1	....	.....	.....	3	.....	.....	.....	1	1	.....	33
4 feet 11 inches	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	52
5 feet	5	3	3	1	2	.....	.....	.....	.....	1	4	139
5 feet 1 inch	10	6	4	6	2	.....	1	.....	.....	.....	3	404
5 feet 2 inches	28	14	5	11	6	2	3	1	3	2	4	651
5 feet 3 inches	26	23	14	12	4	4	3	1	4	4	2	721
5 feet 4 inches	21	19	14	7	8	4	1	4	5	.....	5	708
5 feet 5 inches	15	13	8	13	9	10	.....	.....	2	1	2	511
5 feet 6 inches	8	12	7	3	5	2	1	1	2	.....	5	340
5 feet 7 inches	4,	1	2	5	1	.....	1	3	2	3	7	166
5 feet 8 inches	4	2	1	4	.....	1	1	.....	.....	1	1	73
5 feet 9 inches	2	1	2	.....	.....	.....	1	.....	.....	.....	1	33
5 feet 10 inches	.....	....	1	.....	.....	.....	.....	.....	.....	.....	.....	7
5 feet 11 inches and over	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
Total	124	96	61	63	40	23	12	10	19	13	34	3,845

Relation of age to height—Proportional numbers.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
4 feet 10 inches and under	39.2	22.2	14.3	8.5	5.4	4.8	8.7	5.7
4 feet 11 inches	....	44.4	....	23.7	14.5	9.5	6.5	11.4
5 feet	39.2	22.2	14.3	32.2	39.9	40.6	45.7	22.9
5 feet 1 inch	117.6	177.8	128.4	127.1	105.3	95.5	106.5	111.4
5 feet 2 inches	215.7	111.1	185.7	193.2	194.2	186.2	163.0	160.0
5 feet 3 inches	196.1	177.8	228.6	169.5	216.0	186.2	167.4	202.9
5 feet 4 inches	156.9	200.0	157.1	188.1	177.9	183.8	178.3	185.7
5 feet 5 inches	137.3	133.3	114.3	122.0	119.8	124.1	160.9	128.6
5 feet 6 inches	39.2	44.4	71.4	81.4	83.5	74.0	89.1	100.0
5 feet 7 inches	19.6	44.4	57.1	30.5	29.0	52.5	47.8	48.6
5 feet 8 inches	39.2	....	14.3	13.6	5.4	28.6	10.9	11.4
5 feet 9 inches	....	....	....	6.8	7.3	9.5	8.7	8.6
5 feet 10 inches	....	....	....	1.7	....	4.8	2.2	....
5 feet 11 inches and over	....	22.2	14.3	1.7	1.8	....	4.3	2.9
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE A—*Relation of age to height—Proportional numbers*—Continued.

Height.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
4 feet 10 inches and under..	12.2	10.5	....	12.7	8.1	....	....	....
4 feet 11 inches..............	24.5	15.7	13.6	12.7	....	20.8	....	15.9
5 feet.........................	44.9	20.9	27.3	50.6	40.3	31.2	49.2	15.9
5 feet 1 inch..................	110.2	78.5	122.7	120.3	80.6	62.5	65.6	95.2
5 feet 2 inches................	130.6	151.8	150.0	120.3	225.8	145.8	82.0	174.6
5 feet 3 inches................	163.3	188.5	177.3	189.9	209.7	239.6	229.5	190.5
5 feet 4 inches................	155.1	246.1	204.6	183.5	169.4	197.9	229.5	111.1
5 feet 5 inches................	163.3	120.4	122.7	113.9	121.0	135.4	131.2	206.4
5 feet 6 inches................	85.7	94.2	122.7	113.9	64.5	125.0	114.8	47.6
5 feet 7 inches................	61.2	47.1	31.8	25.3	32.3	10.4	32.8	79.4
5 feet 8 inches................	40.8	10.5	18.2	44.3	32.3	20.8	16.4	63.5
5 feet 9 inches................	4.1	10.5	9.1	12.7	16.1	10.4	32.8	....
5 feet 10 inches...............	4.1	5.2	....	....	....	....	16.4	....
5 feet 11 inches and over....	....	....	....	....	....	....	....	....
Total..................	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Height.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
4 feet 10 inches and under..	75.0	....	....	....	52.6	76.9	....	8.6
4 feet 11 inches..............	....	....	....	....	....	....	....	13.5
5 feet.........................	50.0	....	....	....	....	76.9	117.6	36.2
5 feet 1 inch..................	50.0	....	83.3	....	....	....	88.2	105.1
5 feet 2 inches................	150.0	87.0	250.0	100.0	157.9	153.8	117.6	169.3
5 feet 3 inches................	100.0	173.9	250.0	100.0	210.5	307.7	58.8	187.5
5 feet 4 inches................	200.0	173.9	83.3	400.0	263.2	....	147.1	184.1
5 feet 5 inches................	225.0	434.8	....	....	105.3	76.9	58.8	132.9
5 feet 6 inches................	125.0	87.0	83.3	100.0	105.3	....	147.1	88.4
5 feet 7 inches................	25.0	....	83.3	300.0	105.3	230.8	205.9	43.2
5 feet 8 inches................	....	43.5	83.3	....	....	76.9	29.4	19.0
5 feet 9 inches................	....	....	83.3	....	....	....	29.4	8.6
5 feet 10 inches...............	....	....	....	....	....	....	....	1.8
5 feet 11 inches and over....	....	....	....	....	....	....	....	1.8
Total..................	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

As was to be expected, the height of the highest proportion of Filipinos enlisted was materially less than that for the other races, being 5 feet 3 inches for 18.8 per cent, compared with 5 feet 7 inches for the other classes. The height of more than half of the approved Filipino applicants was under 5 feet 4 inches, while not one was over 6 feet.

The next table shows the weights of Filipino recruits who were finally approved, and the proportion of each weight per thousand, also the relation of weight to age in both absolute and proportionate numbers:

TABLE B—*Relation of age to weight—Absolute numbers.*

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
99 pounds and under	5	2	1	8	9	9	12	5	3	2	4	7
100 to 109 pounds............	7	7	11	130	118	62	76	51	23	24	23	20
110 to 119 pounds............	11	15	20	206	177	134	132	114	73	51	62	54
120 to 129 pounds............	23	19	22	164	173	133	147	106	84	63	68	49
130 to 139 pounds............	2	1	14	69	61	59	75	57	43	36	49	21
140 to 149 pounds............	2	1	2	12	13	18	10	15	16	12	11	3
150 to 159 pounds............	......	......	......	1	......	3	7	2	3	2	3	3
160 to 169 pounds............	1	......	......	......	......	1	1	......	......	1	......	1
170 to 179 pounds............	......	......	......	......	......	......	......	......	......	......	......	......
180 to 189 pounds............	......	......	......	......	......	......	......	......	......	......	......	......
Total..................	51	45	70	590	551	419	460	350	245	191	220	158

TABLE B—*Relation of age to weight—Absolute numbers*—Continued.

Weight.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
99 pounds and under	3	1	.....	1	1	.....	1	.....	.....	.....	1	75
100 to 109 pounds	15	12	5	9	6	1	1	.....	2	1	1	605
110 to 119 pounds	33	40	15	17	10	4	3	3	1	3	7	1,185
120 to 129 pounds	34	17	15	18	15	9	4	4	7	4	5	1,183
130 to 139 pounds	31	20	17	12	8	7	3	1	8	1	12	607
140 to 149 pounds	6	6	8	4	.....	2	.....	.....	.....	3	3	147
150 to 159 pounds	1	.....	.....	2	.....	.....	.....	.....	1	1	3	32
160 to 169 pounds	1	.....	1	.....	.....	.....	.....	2	.....	.....	1	10
170 to 179 pounds	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
180 to 189 pounds	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Total	124	96	61	63	40	23	12	10	19	13	34	3,845

Relation of age to weight—Proportional numbers.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
99 pounds and under	98.0	44.4	14.3	13.6	16.3	21.5	26.1	14.3
100 to 109 pounds	137.3	155.6	157.1	220.4	214.2	148.0	165.2	145.7
110 to 119 pounds	215.7	333.3	285.7	349.2	321.2	319.8	287.0	325.7
120 to 129 pounds	451.0	422.2	314.3	278.0	314.0	317.4	319.6	302.9
130 to 139 pounds	39.2	22.2	200.0	116.9	110.7	140.8	163.1	162.9
140 to 149 pounds	39.2	22.2	28.6	20.3	23.6	43.0	21.7	42.9
150 to 159 pounds	.....	.....	.....	1.7	.....	7.2	15.2	5.7
160 to 169 pounds	19.6	.....	.....	.....	.....	2.4	2.2	.....
170 to 179 pounds	.....	.....	.....	.....	.....	.....	.....	.....
180 to 189 pounds	.....	.....	.....	.....	.....	.....	.....	.....
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
99 pounds and under	12.2	10.5	18.2	44.3	24.2	10.4	.....	15.9
100 to 109 pounds	93.9	125.7	104.5	126.6	121.0	125.0	82.0	142.9
110 to 119 pounds	298.0	267.0	281.8	341.8	266.1	416.7	245.9	269.9
120 to 129 pounds	342.9	329.8	309.1	310.1	274.2	177.1	245.9	285.7
130 to 139 pounds	175.5	188.5	222.7	132.9	250.0	208.3	278.7	190.5
140 to 149 pounds	65.3	62.8	50.0	19.0	48.4	62.5	131.2	63.5
150 to 159 pounds	12.2	10.5	13.6	19.0	8.1	.....	.....	31.7
160 to 169 pounds	.....	5.2	.....	6.3	8.1	.....	16.4	.....
170 to 179 pounds	.....	.....	.....	.....	.....	.....	.....	.....
180 to 189 pounds	.....	.....	.....	.....	.....	.....	.....	.....
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Weight.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
99 pounds and under	25.0	.....	83.3	.....	.....	.....	29.4	19.5
100 to 109 pounds	150.0	43.5	83.3	.....	105.3	76.9	29.4	157.3
110 to 119 pounds	250.0	173.9	250.0	300.0	52.6	230.8	205.9	308.2
120 to 129 pounds	375.0	391.3	333.3	400.0	368.4	307.7	147.1	307.7
130 to 139 pounds	200.0	304.4	250.0	100.0	421.1	76.9	352.9	157.9
140 to 149 pounds	.....	87.0	.....	.....	.....	230.8	88.2	38.2
150 to 159 pounds	.....	.....	.....	.....	52.6	76.9	88.2	8.3
160 to 169 pounds	.....	.....	.....	200.0	.....	.....	29.4	2.6
170 to 179 pounds	.....	.....	.....	.....	.....	.....	.....	.....
180 to 189 pounds	.....	.....	.....	.....	.....	.....	29.4	.3
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Between 110 and 119 pounds was recorded as the weight for the 30.8 per cent, the highest proportion at all ages, of Filipino approved applicants for enlistment during the year. It will be noted that 147 Filipino recruits attained the weights of the highest proportion of white and colored men at all ages enlisted during the last calendar year, while of the 3,845 Filipinos enlisted but 43 weighed 150 pounds or over and 75 were taken into the service weighing 99 pounds and under.

The following table shows the chest measurement of accepted Filipino recruits with ratios per thousand, also the relation of age to chest measurement in both absolute and proportional numbers:

TABLE C.—*Relation of age to chest measurement—Absolute numbers.*

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years.	27 years.	28 years.	29 years.
26 inches	......	4	......	3	1	1	1	1	1	......	......	2
27 inches	......	1	......	5	5	3	2	1	1	......	2	2
28 inches	6	1	1	50	34	27	22	18	7	8	8	6
29 inches	10	7	9	119	99	67	72	45	32	19	17	15
30 inches	17	18	15	147	150	99	92	77	57	33	42	37
31 inches	10	7	12	133	132	99	117	85	62	55	60	38
32 inches	7	6	21	90	74	73	94	64	51	43	44	36
33 inches	1	....	6	29	39	32	36	43	21	24	27	13
34 inches	......	....	3	10	12	14	18	15	10	8	12	7
35 inches	......	1	2	2	4	3	4	......	2	......	7	1
36 inches	......	....	1	1	......	......	1	......	......	1	1	......
37 inches	......	....	......	1	......	......	1	......	1	......	......	......
38 inches	......	....	......	......	1	1	......	1	......	......	......	1
Total	51	45	70	590	551	419	460	350	245	191	220	158

Chest measurement.	30 years.	31 years.	32 years.	33 years.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
26 inches	1	....	......	......	......	......	......	......	......	......	......	15
27 inches	......	....	1	......	......	......	......	......	......	......	......	23
28 inches	2	....	1	2	......	1	1	......	......	......	......	195
29 inches	8	8	4	7	1	......	1	......	......	......	1	541
30 inches	29	24	7	11	11	3	2	1	3	1	7	883
31 inches	30	32	15	16	9	3	1	2	6	......	8	932
32 inches	33	18	15	15	12	9	3	1	1	7	8	725
33 inches	9	12	13	5	6	2	4	3	7	2	5	339
34 inches	10	2	5	5	1	5	......	2	1	1	4	145
35 inches	1	....	......	1	......	......	......	......	1	......	......	29
36 inches	1	....	......	1	......	......	......	......	......	2	......	9
37 inches	......	....	......	......	......	......	......	......	......	......	......	3
38 inches	......	....	......	......	......	......	......	1	......	......	1	6
Total	124	96	61	63	40	23	12	10	19	13	34	3,845

TABLE C.—*Relation of age to chest measurement—Proportional numbers*—Continued.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.
26 inches	....	88.9	....	5.1	1.8	2.4	2.2	2.9
27 inches	....	22.2	....	8.5	9.1	7.2	4.3	2.9
28 inches	117.6	22.2	14.3	84.8	61.7	64.4	47.8	51.4
29 inches	196.1	155.6	128.6	201.7	179.7	159.9	156.5	128.6
30 inches	333.3	400.0	214.3	249.2	272.2	236.3	200.0	220.0
31 inches	196.2	155.6	171.4	225.4	239.6	236.3	254.4	242.9
32 inches	137.2	133.3	300.0	152.6	134.3	174.2	204.3	182.9
33 inches	19.6	....	85.7	49.2	70.8	76.4	78.3	122.9
34 inches	....	....	42.8	17.0	21.8	33.4	39.1	42.9
35 inches	....	22.2	28.6	3.3	7.2	7.1	8.7	....
36 inches	....	....	14.3	1.6	....	....	2.2	....
37 inches	....	....	....	1.6	....	....	2.2	....
38 inches	....	....	....	....	1.8	2.4	....	2.9
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Chest measurement.	26 years.	27 years.	28 years.	29 years.	30 years.	31 years.	32 years.	33 years.
26 inches	4.1	....	....	12.7	8.0	....	....	....
27 inches	4.1	....	9.1	12.7	....	....	16.3	....
28 inches	28.6	41.9	36.4	38.0	16.1	....	16.3	31.7
29 inches	130.6	99.5	77.3	94.9	64.5	83.3	65.6	111.1
30 inches	232.6	172.8	191.0	234.2	233.9	250.0	114.9	174.6
31 inches	253.0	288.0	272.7	240.5	241.9	333.3	245.9	254.0
32 inches	208.2	225.1	200.0	227.8	266.1	187.5	245.9	238.1
33 inches	85.7	125.6	122.7	82.3	72.6	125.0	213.1	79.4
34 inches	40.8	41.9	54.5	44.3	81.0	20.8	82.0	79.4
35 inches	8.2	....	31.8	6.3	8.0	....	....	15.9
36 inches	....	5.2	4.5	....	8.0	....	....	15.9
37 inches	4.1	....	....	....	....	....	....	....
38 inches	....	....	....	6.3	....	....	....	....
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Chest measurement.	34 years.	35 years.	36 years.	37 years.	38 years.	39 years.	40 years and over.	Total.
26 inches	....	....	....	....	....	....	....	3.9
27 inches	....	....	....	....	....	....	....	6.0
28 inches	....	43.5	83.3	....	....	....	....	50.7
29 inches	25.0	....	83.3	....	....	....	29.4	140.7
30 inches	275.0	130.4	166.7	100.0	157.9	76.9	205.9	229.6
31 inches	225.0	130.4	83.3	200.0	315.8	....	235.3	242.4
32 inches	300.0	391.3	250.0	100.0	52.6	538.5	235.3	188.6
33 inches	150.0	86.9	333.3	300.0	368.4	153.8	147.1	88.2
34 inches	25.0	217.4	....	200.0	52.6	76.9	117.6	37.7
35 inches	....	....	....	....	52.6	....	....	7.5
36 inches	....	....	....	....	....	153.8	....	2.3
37 inches	....	....	....	....	....	....	....	.8
38 inches	....	....	....	100.0	....	....	29.4	1.6
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

In fifteen enlistments of native Filipinos the minimum chest measurement of 26 inches was recorded, while 31 inches was the measurement of the highest proportion of accepted candidates at all ages, the proportion being about one-fourth of the total enlistments.

The following statement shows the causes of rejection among Filipino candidates examined for enlistment during the year 1904, with ratios per 1,000 rejected:

Cause of rejection.	Number rejected.	Ratio per 1,000.
Heart disease	53	180.27
Venereal diseases	22	74.83
Diseases of respiratory system, except tuberculosis	21	71.43
Causes not physical	21	71.43
Defects of vision	20	68.03
Under height	19	64.62
Physical debility	17	57.82
Under weight	16	54.42
Tuberculosis	12	40.82
Chest development insufficient	12	40.82
Hernia	11	37.41
Skin diseases	9	30.61
Diseases of the eye, except defects of vision	8	27.21
Defects of development, except as shown in detail	8	27.21
Diseases of the digestive system, except hernia	7	23.81
Epidemic diseases	6	20.41
Diseases of the circulatory system, except as shown in detail	5	17.01
Injuries	5	17.01
Diseases of genito-urinary system, nonvenereal	5	17.01
Varicocele	4	13.61
Defects of hearing	3	10.20
Diseases of organs of locomotion, except spinal curvature	3	10.20
Varicose veins	3	10.20
Curvature of spine	2	6.80
Over weight and obesity	1	3.40
Flat feet	1	3.40
Total	294	1,000.00

The principal causes of rejection among these recruits, ratios per 1,000, in order of their importance, were: Defects of development, 248.29, heart disease, 180.27; venereal diseases, 74.83; diseases of the respiratory system, except tuberculosis, 71.43, and defects of vision, 68.03.

PREVALENCE OF DISEASE BY RACES.

In making this comparison it is to be borne in mind that the native troops were serving in their own country under conditions natural to them but inimical to the white race, and that American soldiers excused from any portion of their military duty, no matter how trivial the cause, must be placed on sick report, while this is not the case with Filipino soldiers.

All the rates except the death rate were much lower for Filipino than American troops, while the death ratio was nearly three times as great among the Filipinos. The higher death rate in the latter race was due to the fact that the Filipinos were more largely employed in active service, and had 12.15 men per thousand killed in action, against 1.75 per thousand for white troops.

The diseases more prevalent among American troops, with the admission rates per 1,000 for each, are shown in the following table:

Disease.	American.	Filipino.
Liver abscess	0.42	....
Alcoholism	37.86	1.52
Insanity	1.75	.87
Appendicitis	3.50	.22
Measles	1.50	.22
Dengue	60.69	12.15
Venereal diseases	297.42	67.25
Dysentery	76.44	17.35
Diarrhea	160.56	76.58
Typhoid fever	1.92	.87
Heart disease	1.75	1.08

The diseases more prevalent among the Filipinos are shown in the following table:

Disease.	Filipino.	American.
Leprosy	0.43	....
Beriberi	74.62	0.08
Pneumonia	3.25	.58
Malarial fever	368.99	220.65
Tuberculosis	7.81	5.41

The Filipinos had a much higher ratio for deaths from external causes, this being due to the fact that a larger proportion of Filipino Scouts than of American soldiers were on field service, the respective proportions being as follows: Admissions, Filipino, 113.88; American, 214.57; deaths, Filipino, 14.75; American, 4.92. The Filipinos had an admission rate for sunstroke of 0.43 as against 1.58 for Americans, and one of zero for drowning against 1.83 for Americans.

The highest death rate among the Filipinos occurred in the period from October to March, inclusive, while the highest death rate among American soldiers was noted in the period March to August.

SANITATION.

The following extracts are taken from the report of the chief surgeon, Philippines Division, for the calendar year 1904:

> I desire to invite attention to the fact that throughout the year 1904 more than 110 different localities were garrisoned by the United States Army in the different islands of the Philippine Archipelago. Out of that number scarcely 30 are military posts as generally understood—that is, stations where the troops are sheltered in government buildings located on ground owned or leased by the United States and controlled by the military authorities. The other 80 or more stations are almost without exception Philippine native towns of varying importance, each one garrisoned by a force of Philippine Scouts ranging in size from a small detachment to a whole company, where troops occupy rented buildings and exercise no control whatever on the affairs or concerns of the locality. They are, moreover, liable to frequent changes, a majority of the towns being garrisoned for a short period only. A discussion of the sanitary conditions of such places is uncalled for in a strictly military report, and would be not only an extremely tedious iteration of closely similar data, but singularly unprofitable in every respect. Our remarks must be confined to military posts proper, occupied largely by white troops.
>
> The military stations proper, or posts of the division, all occupied by white troops, are:

Stations.	Mean strength, 1904.
DEPARTMENT OF LUZON.	
Camp Gregg, Pangasinan	264
Camp Wallace, Union	330
Camp Stotsenburg, Pampanga	764
Malahi Island, Laguna	364
Camp Eldridge, Laguna	93
Fort William McKinley, Rizal	211
Cuartel de Meisic, Manila	334
Santa Mesa Garrison, Manila	368
Cuartel de Espana, Manila	375
Malate Barracks, Manila	332
Pasay Barracks, Manila	400
Camp McGrath, Batangas	475
Camp Wilhelm, Tayabas	254
Camp Daraga, Albay	400

Stations.	Mean strength, 1904.
DEPARTMENT OF THE VISAYAS.	
Iloilo, Panay	184
Camp Jossman, Guimaras	927
Camp Connell, Samar	693
Camp Warwick, Cebu	269
Camp Bumpus, Leyte	286
Camp Downes, Leyte	244
DEPARTMENT OF MINDANAO.	
Zamboanga	252
Jolo	598
Camp Overton	338
Camp Marahui (now Keithley)	719
Camp Vicars	278
Malabang	517
Parang	155
Cottabato	178

The general sanitary condition of stations in the division is almost uniformly reported as being good. Inspectors-general in some of their reports called attention to minor defects existing in this respect at some of the stations, all of which were promptly remedied when practicable. At temporary stations the conditions, as already noted, are usually not within the control of the military authorities. Instructions issued from division headquarters regarding the use of unsterilized food and drinks have been carried out as far as has been possible for post commanders to do so. The larger posts are provided with distilling plants for distilling water; at stations unprovided with distilling plants facilities are furnished for boiling the water; troops operating in the field likewise boil all their drinking water. It has been often said that it is impracticable to sterilize sufficient water for troops in the field. The commanding-general, Department of Mindanao, has been able to accomplish this end without difficulty, necessary utensils being furnished by the quartermaster's department. The chief surgeon of that department ascribes the diminution of dysentery and gastro-intestinal disorders among the troops in the Department of Mindanao to these precautions.

The water supply of the posts in the division is usually from streams; in a few instances from surface wells, and in one instance, Camp Stotsenburg, from driven wells; in another instance, Fort William McKinley, from artesian wells. In the latter instance the water is used for drinking purposes without sterilization; in the case of Camp Stotsenburg the water is boiled for drinking purposes. Bacteriological examination of these deep wells has demonstrated their freedom from pathogenic organisms.

There have been few important changes in the sanitary conditions of the posts in the division. At the permanent posts the buildings are generally reported as being in good state of repair and as offering proper protection to the troops. Those posts in which changes have been noted in the sanitary condition are as follows:

In the Department of Luzon. Camp Eldridge, Los Banos, Laguna, a new post was built and the troops removed from an old convent which was used as barracks with satisfactory results. The new post is reported as being well situated and well drained. When first occupied mosquitoes were extremely numerous, owing to the fact that the post is surrounded by tall grass; the cutting of this for a distance of 100 yards beyond the buildings reduced their number markedly.

At Fort William McKinley recommendations have been made regarding drainage. This post is still under construction and will be provided in due course of time with sewers, and all the recommendations made with reference to drainage will probably be remedied eventually.

At Camp McGrath the surface drainage has been improved, cement walks have been laid, dry-earth closets have been removed from tents to permanent sheds having floors, lavatories with cement floors and drains have been erected, breeding places and shelters for mosquitoes have been practically abolished by drainage or filling in of surface depressions, and by cutting tall grass and shrubbery, the use of mosquito bars has been enforced by night inspection, a new water supply has been secured from a spring on the reservation, which yields 200,000 gallons per day; this water is to be piped to the post.

Camp Wilhelm, which bears a reputation of being the second post in the Department of Luzon in order of admission rate for malaria, is surrounded by marshy land

and dense underbrush, which breed and protect mosquitoes. The preventive measures adopted here have been the filling in, as far as practicable, of all depressions under the jurisdiction of the military authorities. Those pools which it has been found impossible to drain have been oiled. This post, being on leased land, will probably be removed elsewhere.

Other recommendations made from this office on special sanitary reports have been as follows:

That the reservoir at the convalescent hospital, Corregidor Island, be repaired so as to prevent loss, in view of the danger of insufficiency of water supply; that the drains for surface water be repaired, and that a water-closet system be installed in place of the earth closets now in use.

The second recommendation has been favorably acted upon and the work in that connection is now under way; the other questions are still under consideration.

The water supply at the pumping station is obtained from a spring. This spring is reported as being well protected from contamination by masonry work, and the water was used unboiled because it had been analyzed and reported as being pure. As it is not believed that any natural water, except perhaps artesian water, in these islands is free from amebæ, it was recommended that instructions be issued to boil this water for drinking.

In the Department of the Visayas.—The surgeon at Camp Hartshorne, Samar, reported that recommendations had been made to grade and fill certain areas which retain water and were breeding places for mosquitoes. These recommendations had not been completely carried out. The attention of the department commander has been called to the defects.

It was reported that the water used for drinking at Camp Jossman was passed through Forbes-Waterhouse sterilizers and then distributed; as the experience in this division with these sterilizers has not been satisfactory, it was recommended that a distilling plant be erected.

At Camp Warwick the excreta are disposed of by water-carriage system emptying into the river bed near the post hospital, and remains upon the shore until washed away by the rains. It was recommended that the sewer be made to enter directly into the sea in order to remove the above objection. The recommendation has been referred by the division commander to the department commander for action.

In the Department of Mindanao.—Two new and commodious sets of board barracks with galvanized-iron roofs have been erected at Zamboanga, in which the men are reported as being more comfortably housed. A new hospital has been erected at this station during the year. This hospital has accommodations for 60 patients, and is said to be well adapted to the needs of the post. The command at this station consists of seven companies, and, though the hospital is not designated officially as such, it is to all intents and purposes the base hospital for the Department of Mindanao. The surgeon at this station recommended the removal of the post to a more elevated site, giving as his reasons that he considered the present site low, damp, malarial, and insanitary; this recommendation was disapproved by the department commander on the ground that the health record of Zamboanga is a good one. As far as known to this office, Zamboanga has always been considered one of the most healthful stations in the division.

Camp Overton is a new station, first occupied by its present strength of garrison in March, 1904. The buildings are of a temporary character, and the future of this post is still unknown. The surgeon of the post reports that there has been a great reduction in the number of malarial fevers and diarrhea in the command as compared with the previous year, at which time this same strength of command was stationed in the town of Iligan. An outbreak of dysentery in September he ascribes to the use of imperfectly sterilized drinking water. This drinking water was simply passed over the coils of steam pipe in the condenser of the ice plant. The outbreak ceased upon the discontinuance of the use of this water and its substitution by water which had been thoroughly boiled. He also recommended the installation of a more adequate water supply, which recommendation is still under consideration.

Camp Marahui reports an increase of diarrhea and dysentery and a diminution of malarial fevers as compared with the previous year. The surgeon gives no explanation regarding this increase. He states that strict orders have been issued in regard to the sole use of boiled water for drinking, but it appears to be impossible to compel their strict observance. This post also reports five cases of typhoid fever, contracted at a substation, which, in the opinion of the surgeon, were caused by swallowing river water while bathing. The hospital at this station consists entirely of tents. Plans and estimates for the construction of a board hospital have been approved, and it is believed at this date the work has already been begun. The usual recommendations regarding the removal of breeding places of mosquitoes have been made and carried out at this post.

The surgeon at Malabang has made many recommendations from a sanitary standpoint, nearly all of which have been promptly carried out. Among these recommendations he reports a diminished sick report by the removal of the men from under canvas into barracks. He also reports that the post exchange has conduced to the physical, mental, and moral improvement of the men. He states that the enforced use of mosquito bars has resulted in a diminution in the amount of malaria at that post. He also refers to the fact that after orders had been issued requiring the boiling of underclothing, dhobie itch, which appeared to infect men who had been in the field as well as those who had not been in the field, was diminished.

HEALTH OF THE TROOPS ON TRANSPORTS.

During the year 1904 7,566 enlisted men left the United States on transports for passage to foreign stations and 7,524 returned from foreign stations.

The army transports were the most healthful places for troops, with an admission ratio of 466.63, a death rate of 5.61, and a noneffective rate of 37.77 per thousand of strength.

MEDICAL OFFICERS, UNITED STATES ARMY.

The number of medical officers allowed by law is 322; the number in service June 30, 1905, was 303, leaving 19 vacancies at that date.

The following table shows the loss of medical officers during the fiscal year:

Cause.	Colonels.	Lieutenant-colonels.	Majors.	First lieutenants.	Total.
Commission vacated by new appointment	1				1
Retired from active service	1	2	2	2	7
Resigned				1	1
Died				2	2
Honorably discharged				1	1
Aggregate	2	2	2	6	12

There have been promoted during the year 2 lieutenant-colonels, deputy surgeons-general, to be colonels, assistant surgeons-general; 4 majors, surgeons, to be lieutenant-colonels, deputy surgeons-general; 6 captains, assistant surgeons, to be majors, surgeons; 8 first lieutenants, assistant surgeons, have been advanced to the rank of captain after five years' service, in accordance with existing law. Eight appointments have been made in the grade of assistant surgeon, with rank of first lieutenant, 4 of whom were appointed July 6, 1904, having been examined during the preceding fiscal year. Five first lieutenants were examined and 4 reexamined for advancement to the rank of captain; 1 of the latter failed to qualify and was honorably discharged, as provided by the act of October 1, 1890; the others were found qualified and advanced as above stated.

The bill to increase the efficiency of the Medical Department of the Army, which was reported favorably by the Senate Military Committee during the last session of Congress, was passed without change by the Senate January 5, 1905. On January 9, 1905, the President of the United States sent the following special message to Congress urging the passage of the bill:

To the Senate and House of Representatives:

I have, in a former message, stated to the Congress my belief that our Army need not be large, but that it should in every part be brought to the highest point of efficiency. The Secretary of War has called to my attention the fact that the act approved February 2, 1901, which accomplished so much to promote this result, failed to meet the needs of one staff department in which all of our people are peculiarly interested, and of which they have a right to demand a high degree of excellence. I refer to the Medical Department. Not only does a competent medical service, by safeguarding the health of the Army, contribute greatly to its power, but it gives to the families of the nation a guaranty that their fathers, brothers, and sons who are wounded in battle or sicken in the camp shall have not only skilled medical aid, but also that prompt and well-ordered attention to all their wants which can come only by an adequate and trained personnel.

I am satisfied that the Medical Corps is much too small for the needs of the present Army, and therefore very much too small for its successful expansion in time of war to meet the needs of an enlarged Army and in addition to furnish the volunteer service a certain number of officers trained in medical administration. A bill which, in the opinion of the Secretary of War, of the late Secretary of War, and of the General Staff of the Army, supplies these deficiencies was introduced at the last session of Congress, and is now before you. I am also advised that it meets the cordial approval of the medical profession of the country. It provides an organization which, when compared with that of other nations, does not seem to err on the side of excessive liberality, but which is believed to be sufficient. I earnestly recommend its passage by the present Congress. If the Medical Department is left as it is no amount of wisdom or efficiency in its administration would prevent a complete breakdown in the event of a serious war.

I transmit herewith a memorandum which has been prepared for me by the Surgeon-General of the Army, and also the remarks of the former and of the present Secretary of War with reference to this bill.

* * * * * * *

THEODORE ROOSEVELT.

WHITE HOUSE, *January 9, 1905.*

[Memorandum for the President—The bill to increase the efficiency of the Army.]

WAR DEPARTMENT,
OFFICE OF THE SURGEON-GENERAL,
Washington, December 7, 1904.

The fact that mortality from disease in armies in war time greatly exceeds that from losses in battle is well known. The noneffective rate from sickness is even more greatly in excess of that from wounds. The British army in the Peninsula, in spite of the many bloody battles, lost three times as many men from disease as from wounds. The infant French Republic was saved at Valmy more by the paralysis of Prussian efficiency by ravage of disease than by that rather bloodless victory. General Scott in the Mexican war lost by disease one-third of his effective strength. The loss from disease in the civil war was more than double that from the casualties of battle. The military efficiency of newly raised armies is specially liable to be gravely compromised or even destroyed from this cause.

The three primary duties of the Medical Department are:

1. To preserve the effective strength of armies (military sanitation).
2. To care for the sick and wounded.
3. To conduct the administrative work of the department.

To carry out these objects requires a highly specialized and complex organization and a numerous trained personnel. Military sanitation is now recognized to be a well-marked specialty in medicine of which the average practitioner knows little more than he does of the methods of military medical administration. The second duty is that for which civilian physicians can be used to advantage, while the first and third must in the main be in the hands of trained medical officers in order to secure efficiency. The standard of what is regarded as a satisfactory degree of efficiency in all of these directions has been greatly raised in late years.

In the Spanish war the country was scandalized by a monthly death rate from disease which rose from 2.15 per thousand in July to 4.08 in August, but fell again to 2.45 in September. During the civil war a higher death rate from disease than the highest maximum above mentioned persisted for many months, reaching in the spring of 1862 a maximum more than double it, without creating half as much popular clamor.

Nor would such occurrences be possible now in civilized warfare as for 600 wounded to lie for more than ten days on the battlefield, as happened after the second battle of Bull Run, on August 30, 1862, when many of the wounded died of starvation. That this was not one of the unavoidable horrors of war, but was, as stated by the Surgeon-General in reporting these facts, due to defective medical organization is evidenced by the fact that after the organization of the ambulance service of Letterman such occurrences ceased in the Army of the Potomac. After the great battles of Fredericksburg, December 13, 1862, and Chancellorsville, May 2, 1863, for instance, although the army was defeated, the field was cleared of wounded without confusion or delay.

The public sentiment of the civilized world therefore demands better organization and higher efficiency for the medical department of armies than at any time heretofore. Other nations, including even so poor a nation as the Japanese, are willing to pay the cost of increased efficiency in the shape of a large and well-organized medical service, and it is not to be believed that Congress or the American people will refuse for our Army what is demonstrated to be essential to avoid future failure and insure efficiency. For medical efficiency a certain number of trained medical officers is necessary to direct matters of military sanitation, and, in the words of Mr. Root, "to conduct the administration of the great and complicated medical service." The measure of this number is given by the Secretary of War in his report for this year as follows (p. 25):

"It is evident that a staff department which has a personnel insufficient to perform the duties required of it in time of peace can not be successfully expanded to meet the increased responsibilities of war. The commissioned personnel of the Medical Department is nearly 200 short of the number required to perform its work at present, and the deficiency has to be made good by the employment of civilian physicians under contract. This is an expensive and unsatisfactory expedient in time of peace, while in time of war it heavily handicaps the efficiency of the Department."

This principle was not recognized in the reorganization of the Army in 1901. The increase in the Medical Department at that time was so inadequate that the proportion of medical officers to the army at large was not increased, but greatly diminished and was made considerably less than the proportion existing at the beginning of the Spanish war or the civil war—this in spite of the recommendation of the Dodge Commission that the regular corps be increased.

Instead of giving an advocate's discussion of the bill now before Congress, I prefer to refer the President to the impartial opinion of the experts of the Third Division of the General Staff as given in their report on it made to the Chief of Staff, which is to be found on pages 6, 7, and 8 of the report of the Senate Military Committee. (Report No. 2420.)

The attention of the President is especially asked to the following points:

The Army is to-day officered for a strength of 100,000 men except the Medical Department, which is only sufficient for 42,000.

An adequate increase in the Medical Corps was recommended by the Dodge Commission.

This bill offers, in the words of Secretary Taft, "a complete workable system."

With a less number than that asked for, the Medical Department can not perform the duties with which it is charged by Army Regulations in time of peace, or be successfully expanded to meet the increased labors and responsibilities of war.

With a less proportion in the higher grades it can not attract properly qualified candidates to fill the vacancies created.

The Reserve Corps constitutes an eligible list of competent civil physicians who will reinforce the regular Medical Corps in time of war or other emergency.

The increase of cost is, when the enlargement is completed four years hence, only a little over 4 per cent above the present cost of the Medical Corps, while next year it will be actually diminished under this act.

The increase of efficiency is as 320 is to 450, or about 40 per cent.

This bill has received the rigid scrutiny of the General Staff, and the approval of Secretary Root, of Secretary Taft, of the Military Committee of the Senate, and of the American Medical Association.

Respectfully submitted.

R. M. O'Reilly,
Surgeon-General.

War Department,
Washington, January 30, 1904.

I heartily approve this bill in principle. I consider that it will be greatly to the benefit of the service to abandon the employment of contract surgeons and substitute in their place regular commissioned officers. I do not think the number to which it is proposed to increase the Medical Corps is at all excessive. It seems to me that the presentation of the case by the Surgeon-General in regard to the necessities of skilled administration of the medical service in time of war is conclusive. It will be easy in time of war to secure an adequate number of physicians competent to treat the sick and wounded, but it will be impossible to secure medical men competent to conduct the administration of the great and complicated medical service unless they are specially trained in time of peace. The lack of a sufficient number of such trained officers in the past has caused untold suffering and the sacrifice of many thousands of valuable lives. It is our present duty to see to it that such a condition shall never exist again. I believe that that can be accomplished only by following the course which has now been indicated by the Surgeon-General and approved by the General Staff.

Upon the single question of the relative proportion of majors, lieutenant-colonels, and colonels which should properly be accorded to the Medical Corps, the Surgeon-General wishes to ask reconsideration by the General Staff. That single question, with the assent of the Chief of Staff, will accordingly be relegated to the General Staff for further consideration. Upon all other questions I approve the bill in detail.

Elihu Root, *Secretary of War.*

War Department,
Washington, February 18, 1904.

Sir: I have the honor to transmit herewith a bill to increase the efficiency of the Medical Department of the United States Army, together with the approval by my predecessor, Secretary Root, of the bill in every part except as to the relative proportions of majors, lieutenant-colonels, and colonels which should properly be accorded to the Medical Corps.

The question was remitted to the General Staff for further consideration, and has been returned with the recommendation that the number of colonels be limited to 12, the lieutenant-colonels to 18, with 110 majors and 300 captains and first lieutenants; whereas the recommendation of the Surgeon-General is that the colonels number 20, the lieutenant-colonels 20, majors 110, and captains and lieutenants 300.

It appears that the division of the General Staff to which the bill was referred approved the proportion of colonels and lieutenant-colonels as recommended by the Surgeon-General, but that the War Department General Staff as a body, when the exact point was submitted to them, made the recommendation as above. General Chaffee was not present, I am informed, at the meeting of the General Staff, and possibly did not have the advantage of all the statements which were made with reference to the proper number of medical officers for each tactical unit in the field. Certainly the evidence introduced by the Surgeon-General shows that the number necessary for each tactical unit is considerably greater than that which must have been assumed by General Chaffee in the conclusion which he reached. Of course, I must differ from the opinion of the General Staff and the distinguished chief of that body with great diffidence in view of the short time that I have been in the Department. I have, however, read the arguments carefully of the Surgeon-General and the statement of the Third Division of the General Staff, and also of the Chief of Staff, and I am bound to say that it seems to me that the arguments of the Surgeon-General substantially outweigh those advanced by the Chief of Staff. The Surgeon-General's report shows a complete workable system which the amendment by the General Staff truncates and destroys the symmetry of. Then, too, the prospect of promotion which the increased number in the higher grades offers to those who enter the service seems to be absolutely essential to procuring good material for the Medical Corps. The increased expense in securing a proper medical education in modern days, as shown by lengthening of the term of preparation from two to four years, and the great professional rewards in civil life make it highly important that there be offered a due prospect of promotion to young men of ability to induce them to enter the corps.

In deference to the opinion of the General Staff, however, I have concluded to recommend a reduction in the number of colonels and an increase in the number of lieutenant-colonels, so that the bill should provide for 16 colonels and 24 lieutenant-colonels, and this I do after a conference with the Surgeon-General, who is willing to accept the amendment.

I do not approve that amendment to the law which limits the examination of a lieutenant-colonel, necessary to his promotion to a colonelcy, to an examination of his physical condition, his moral character, and his past record in the service, and it seems to me that the examinations ought to be continued to the highest rank, except that of the Surgeon-General, which grade is filled, of course, only by selection. Such a requirement will have the effect of preventing the upper grades from being regarded as places of leisure and as not entailing the hard enthusiastic work which is found in the lower ranks.

I have the honor to recommend the passage of the bill amended as suggested. I believe it to be of the utmost importance in securing a proper and efficient Medical Corps.

I accompany this letter with the bill and with the communications received by me from the Surgeon-General, the Third Division of the General Staff, and the Chief of Staff.

Very respectfully,

Wm. H. Taft,
Secretary of War.

The Chairman Committee on Military Affairs,
House of Representatives.

[Note.—The bill as finally sent to Congress was altered so as to be in accord with the views of the Secretary of War as expressed above.]

The House Military Committee took up the consideration of the bill January 9, 1905. On February 17, 1905, the committee reported the bill favorably, but with amendments. It was, however, found impossible to have the bill called up in the House during the closing days of the session.

It is earnestly hoped that favorable action may be obtained at the next session of Congress on this bill, the passage of which means so much to the efficiency of the Army.

ARMY MEDICAL SCHOOL.

The ninth session of the school began October 1 and ended April 11, 1905. The student body comprised ten junior medical officers, three student candidates, and eight medical officers of the militia, the latter admitted under the provisions of the Dick bill.

The Alexander H. Hoff memorial gold medal was awarded to Dr. William A. Duncan, a student candidate; the next two places on the honor roll were also held by student candidates, Herbert C. Gibner and Earl H. Bruns, respectively.

The graduating exercises were held at the Army Medical Museum, April 11, 1905. The following is an extract from the report of Col. C. L. Heizmann, assistant surgeon-general, U. S. Army, president of the faculty:

The schedule is deemed amply sufficient for students who have been commissioned and have had some service at military posts. A larger and fuller course in administrative duties, however, is advisable for student candidates and officers of the militia. This will be provided in the next session, the duration of which will be that contemplated by the circular of information, Office of the Surgeon-General, June 21, 1904, viz, eight months instead of six. There will be an opportunity then, also, to enlarge the scope of some other subjects, bacteriology, pathology, and hygiene, so that they may be completed during the session of the school and their repetition in the final examination for commission be avoided. Likewise a more extensive course in physics and in chemistry, from elementary to analytical, ending by a school examination, would seem to justify the omission of that subject from the preliminary examination to enter the school.

Regarding the students the school is now in a transition state. Originally and from its establishment all were officers who had no particular incentive to study. Failure in one or all of the branches taught carried no penalty. During this session the body of students comprised ten such officers, three student candidates, and eight militia officers. Those of the first kind showed at the earlier stages only a perfunctory desire to be benefited, either to graduate with honor (an average of 90 per cent) or to graduate at all (an average of 80 per cent). Later there was improvement, and yet the result was that only two attained the honor, and of the remainder, though all were declared proficient, several secured positions in the class not in accord with their positions in the Army.

The three student candidates, having everything to gain, captured the highest places, in spite of the fact that they had much more additional work in order to meet the requirements of the final examination for commission, thereby proving the wisdom of the radical change from the old system of securing medical officers. Having watched their conduct, habits, attention to duty, and appreciated their eminent success, I have no doubt that hereafter the Medical Department will get by the new system a superior class of officers.

At this session, too, was inaugurated the training of medical officers of the militia of the States in everything pertaining to military medicine as distinct from naval, municipal, State, and civil medicine, etc., in order that under the Dick law they might become qualified in the emergency of war to perform all the duties of military surgeons of the national Army. If my interpretation of the purpose is correct, I regret to report that the result was not satisfactory. All these officers were studious and earnest, and all would have contributed to the sanitary and disciplinary education of the organizations to which they belong, had they returned to them. The majority, however, developed an intention to use the school as a means of employment in the regular establishment, thus to deprive their States of their services. One succeeded in receiving a commission in the Army and two secured contracts. This result is interesting in demonstrating the need of some regulation by which the purpose of the law would be fulfilled in greater part and at the same time secure for the regular and volunteer forces the best material possible.

This last point will be attained by requiring all militia medical officers who have served one year as such, and who have been recommended by the governors of their respective States, to pass an entrance examination similar to those exacted of line officers by the Artillery School and the Infantry and Cavalry schools.

The school having acquired additional rooms, can now accommodate a maximum of 50 students.

CONTRACT SURGEONS, UNITED STATES ARMY.

There were 182 contract surgeons in service at the close of the fiscal year, June 30, 1904. During the past fiscal year contracts were made with 37 physicians, while 59 contracts were annulled and 3 were terminated by death, leaving 157 in service June 30, 1905. Of the 37 contracts made, 17 were merely renewals for definite terms of contracts already in force, and nearly all of the remaining 20 were with those having former creditable service as contract surgeons or volunteer medical officers. The net loss in contract surgeons for the fiscal year was 25, and the number remaining in service is the lowest since July, 1898.

Contract Surg. Samuel Turner died of cerebral sclerosis, near Fargo, N. Dak., December 11, 1904; Contract Surg. Joseph A. O'Neill was killed by ladrones at San Francisco de Malabon, Cavite, Philippine Islands, January 24, 1905, and Contract Surg. Frederick W. Richardson died of wood-alcohol poisoning at Ligao, Albay, Philippine Islands, January 26, 1905.

CONTRACT DENTAL SURGEONS, UNITED STATES ARMY.

Thirty dental surgeons are allowed by the act of Congress approved February 2, 1901, and this number has been continuously employed under contract during the fiscal year ended June 30, 1905. Two contracts were annulled, and in each case the vacancy was filled the next day. Fourteen dental surgeons are at present serving in the Philippine Islands and 16 in the United States.

The following tables of dental statistics show that the dental surgeons have continued to perform valuable work throughout the year. In the Philippine Islands 996.21 cases per thousand of mean strength received dental treatment and operations were performed to the extent of 1,052.43 per thousand compared with 576.24 and 508.22, the corresponding figures for the United States.

The number of teeth affected by dental caries in white troops serving in the United States was 376.08 per thousand men, compared with 367.50 for the negro troops and 73.53 the rate for Filipino troops so serving. In the Philippine Islands the number affected in white troops was 884.90 per thousand mean strength, while 31.71 per thousand of the native scouts were treated for dental caries:

Dental and oral diseases.

	United States (continental) except Alaska.		Philippine Islands.		Total.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
Cases admitted to treatment	26,431	567.24	17,082	996.21	43,513	682.63
Operations performed	23,681	508.22	18,046	1,052.43	41,727	651.61

Dental caries—Number of teeth affected.

	United States (continental) except Alaska.		Philippine Islands.		Total.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
White troops	16,248	376.08	11,378	884.90	27,626	492.78
Colored troops	1,147	367.50			1,147	367.50
Filipino troops	20	73.53	136	31.71	156	34.20
Total troops	17,415	373.75	11,514	671.49	28,929	453.84

HOSPITAL CORPS.

At the date of last report, June 30, 1904, the strength of the Hospital Corps was as follows:

Sergeants, first class	274
Sergeants	269
Corporals	19
Privates, first class	1,490
Privates	1,028

Since then it has gained:

By enlistment	1,029
By transfer	706
Return from desertion	38

And lost during the same period:

By discharge by expiration of term of service	1,364
By discharge by order	96
By discharge by sentence of general court-martial	46
By discharge on surgeon's certificate of disability	48
By transfer to the line	9
By retirement	8
By death due to disease	16
By death due to suicide	1
By death due to drowning	4
By desertion	198
Killed in action	3

Leaving in service June 30, 1905:

Sergeants, first class	275
Sergeants	277
Corporals	16
Privates, first class	1,159
Privates	1,333

The 26 vacancies existing in the grade of sergeant, first class, June 30, 1904, and those occurring shortly thereafter, were filled on September 9 of that year by appointment of 35 sergeants who had received the highest marks in a competitive examination held in accordance with existing law and regulations.

The needs of the service as to this class of noncommissioned officers having been fully met it was not deemed advisable to hold a competitive examination during the year ended June 30, 1905. The chief surgeons of all the military departments in the United States and the Philippines were, however, notified in the early part of May that such an examination would be held during the coming September, and questions for that purpose were forwarded to the chief surgeon, Philippines Division, in the early part of June. There are now about 25 vacancies in the grade of sergeant, first class.

Recruitment.—The importance of this branch of the administration of the corps has received most careful consideration. The total number of losses from all causes during the past fiscal year were 1,793. Two hundred and fifty members of the corps reenlisted the day following discharge and 779 enlistments and reenlistments were made from civil life (a total gain of 1,029), leaving 764 vacancies to be made up from other sources. These were nearly all filled by transfer to the corps of enlisted men of the line. One of the reasons for this large transfer and the comparatively small number of enlistments is the remarkably favorable condition of the wage-earner who could always find plenty of remunerative work in civil life during the spring, summer, and early fall. Another reason is the great care exercised in the selection of civilian applicants for enlistment, who are required to come up to the regulation standard, except as to minor defects of vision which are entirely corrected by glasses.

During the period from January to December, 1906, the corps will lose about 600 men by expiration of service, and this number will probably be increased by discharges on surgeon's certificate of disability, by purchase, by sentence of general court-martial, and by casualties from death, desertion, etc.

The distribution of the Hospital Corps at date of this report according to latest returns is as follows:

Department.	Sergeants, first class.	Sergeants.	Corporals.	Privates, first class.	Privates.	Total.
California	13	12		59	58	142
Colorado	8	7		31	38	84
Columbia	12	12		48	49	121
Dakota	7	6		33	36	82
East	40	36		166	211	453
Gulf	12	8		44	50	114
Lakes	7	14		31	32	84
Missouri	16	30	2	79	105	232
Texas	11	8		46	39	104
Independent	51	58	10	261	323	703
Total, United States	177	191	12	798	941	2,119
Alaska	7	3		24	20	54
Porto Rico		2		6	13	21
Hawaii	1	2		3	6	12
Philippine Islands	80	71	4	307	349	811
Ordered to Philippine Islands	4	6				10
China	1			5		6
Transports	5	2		16	4	27
Grand total	275	277	16	1,159	1,333	3,060

That the esprit of the corps has been materially raised during the last few years is fully shown by the reports of inspectors-general and the commendations of the various officers of this department as well as of the line, concerning the conduct of the men during active operations in the field and particularly while on the firing line.

During the year the following-named men were killed in action in the Philippines:

Private Morris Simon, killed by hostile Moros at Buglebung, island of Basilan, Mindanao, March 17, 1905.

Private First Class Robert W. Toler, killed September 6, 1904, during engagement with armed Pulajans at Hemegangan.

Private Willie Johnson, killed November 10, 1904.

Private Guy R. Austin was severely wounded January 8, 1905, at Malog, Samar, Philippine Islands.

Sergt. George W. Hall, Private First Class Charles D. Mann, and Private J. M. Shreve, Hospital Corps, were commended for their services in action on January 7, 1905, at the taking of Usap's Cotta on the island of Jolo, Philippine Islands.

Privates Edward J. Brown, Robert E. Pastors, Frank Pease, and Patrick Fahey, Hospital Corps, were commended for their devotion to duty in general orders from the headquarters, Department of Mindanao, January 1, 1905, and General Orders, No. 2, Philippines Division, January 12, 1905, respectively.

Sergeant First Class Leopold David was highly commended for his services to Indians in Alaska during the months of February, March, and April, 1905.

The following changes in administration materially affecting the Hospital Corps have occurred during the past fiscal year:

The Military Secretary on September 29, 1904, informed me of the approval by the Secretary of War for a change of designation of companies of instruction Nos. 1 and 2, Hospital Corps, to companies of instruction A and B.

Company B changed station August 30, 1904, from Fort McDowell, Cal., to the Presidio of San Francisco, Cal. The scheme of instruction has been slightly altered to meet, as far as seems desirable, the views of the commanding officer of Company B.

The average number of men under instruction during the calendar year was in Company A 163, in Company B 145. In Company A the number of men who completed the course and were assigned to duty elsewhere was 138, in Company B 178.

About a thousand recruits are required annually for the Hospital Corps, and each company is capable of receiving and instructing about 300 men, so that if all recruits are to pass through the companies, as seems desirable, it will be necessary to establish at least one more such company. It has therefore been recommended that a third company should be established and, in order that it may be centrally located, Fort D. A. Russell, Wyo., has been selected for its station.

The revised Drill Regulations and Outlines of First Aid for the Hospital Corps, prepared by the board of medical officers convened by Special Orders, No. 104, War Department, May 4, 1903, were approved by the Secretary of War in October of 1904, and distributed to the Army in February, 1905.

In order that those members of the Hospital Corps who are serving with cavalry troops should receive the proper instruction in equitation a regulation was issued by the Secretary of War, June 10, 1905, requiring these men to be reported to a troop commander one day of each week, to be determined by the post commander, for one hour of instruction with the members of the troop.

NURSE CORPS (FEMALE).

During the year there have been 326 applications for admission to the Army Nurse Corps. Thirty-five discharges have allowed the same number of appointments, five of which were from among those who had given previous acceptable service. There are now 7 hospitals where trained women are employed—2 in this country and 5 in the Philippine Islands. The close of the fiscal year finds the corps at its full strength, distributed as follows:

United States Army General Hospital, Presidio of San Francisco, Cal	46
United States Army General Hospital, Fort Bayard, N. Mex	16
Division Hospital, Manila, P. I	22
Convalescent Hospital, Corregidor Island, P. I	2
Base Hospital, Iloilo, P. I	3
Zamboanga, Mindanao, P. I	6
Camp Keithley, Mindanao, P. I	4
Home awaiting discharge	1

There has been no death among the nurses on active duty since 1899, and only 3 cases of critical illness—2 of acute nephritis, 1 of pneumonia; none in the past year. After seven years it would seem that the employment of trained women in army hospitals had passed the experimental stage. Steps should be taken to offer inducements to the most highly efficient to remain in the corps and to make the service attractive to the best class of graduate nurses outside. In the report of the inspector-general, Pacific Division, to the Secretary of War, April 7 to 11, 1905, is found unqualified commendation of the nurses, accompanied by recommendations identical with those made in the report from this office for the last fiscal year:

> The Army Nurse Corps is most efficient and attentive to its duties. The conduct of the nurses has been unexceptionable, and the work deserves the warmest praise.

It would therefore seem reasonable and particularly appropriate to encourage them by: (1) An increase of pay—10 per cent for every five years (or 5 per cent for every three years); (2) commutation of rations in lieu of the ration itself; (3) cumulative leave for such period as may seem advisable to the department.

MANEUVERS.

Combined maneuvers of the Regular Army and the Militia were held during the year at American Lake, Washington, from July 7 to 19; at Camp Atascadero, Cal., August 13 to 25 and at Manassas, Va., September 5 to 10, 1904.

At each of these camps no effort was spared to make the sanitary conditions as perfect as possible, and that these efforts were successful is shown by the very small sick list. The opportunity to give medical officers and hospital corps a chance to practically apply field service regulations was used to the fullest extent and was productive of good results.

The reports received from the various chief surgeons have been carefully studied and the following observations embrace the more important points covered by them:

1. *Camp sanitation.*—Water supply: This was generally satisfactory, but there was a general consensus of opinion that water carts in sufficient number should be supplied to troops in the field.

There is practical agreement that the privy-pit system, no matter how carefully looked after, should have no place in a camp of a week's duration or longer, and that it should be replaced by the disinfecting trough system or by crematories as soon as a practical type of the latter is available.

Disposal of garbage: The pit system is equally condemned for this purpose, and should be replaced by covered cans removed daily, or by cremation.

2. *Instruction in removal of wounded.*—The method of imparting this special instruction gave unsatisfactory results. The men who were given diagnosis tags and directed to fall out as wounded during engagements generally failed to do so, or if they did fall out failed to wait to be cared for by the medical department, but took the shortest route back to camp or to their organizations. The umpires apparently gave no particular attention to this feature of the problems.

It is recommended that special days be set apart for the instruction of the command in this important subject, with medical officers as umpires to criticise the arrangements made and the method of carrying them out. On such occasions companies or battalions of the line should be detailed to assist in removing the wounded, on the theory that the day is advanced, and owing to the large number of wounded it will be impossible for the medical organization alone to clear the field in time. Part of this work should be done at night. Such a scheme would impress upon the line how important this feature of battle may become.

3. *Personnel of the Medical Department.* It was generally noted that there was a deficiency in numbers of both medical officers and Hospital Corps to properly man the various field organizations of the medical department, and that in order to obtain the best results in practice these organizations should have their full quota of personnel and material.

All the officers and men that could be spared from posts were sent to these camps, but it will be impossible to furnish complete quota until the corps is enlarged as proposed.

4. Material of the Medical Department.—Lack of sufficient mounts for the Hospital Corps and lack of adequate transportation was reported from every camp. Until the Medical Department can control its own transportation it will always be liable at any moment to a breakdown in this vital matter.

The ambulances issued were of several different patterns, none answering all requirements. Two animals were generally furnished for each ambulance, whereas four are necessary in the field. Several officers recommended motor ambulances.

The travois which were tried were also of several patterns and some did not fit the present litter. The travois principle was, however, generally recommended.

Recommendations were also made that wheel litters be given a trial at maneuvers.

It is evident that the whole question of vehicles for the removal of wounded requires careful revision and consideration, and it is recommended that a board of officers of the Medical and Quartermaster Departments be appointed to consider the subject.

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

During the last calendar year 565 patients were treated in this hospital, of which 35 were officers of the Army and 13 were officers of the Navy. The admissions were classified as follows: Rheumatism in various forms, 267; diseases of the digestive system, 39; of the nervous system, 65; of the kidneys, 13; malarial fevers, cachexia, etc., 27; other diseases, 154. Of the total number of patients treated, 325 were returned to duty or returned to their homes; 44 were discharged for disability; 2 died; 97 were otherwise disposed of, and 97 remained under treatment December 31, 1904.

Lieut. Col. Blair D. Taylor, deputy surgeon-general, U. S. Army, commanding officer of the hospital, is of the opinion that chronic diarrhea and catarrhal affections of the digestive and respiratory tracts, especially lung troubles, are rather aggravated than benefited by the course of treatment received at this institution, and recommends that such cases be eliminated from those which may properly be expected to improve under treatment in the general hospital. All patients with organic lesions of the heart should be barred, as the baths are injurious and may be fatal.

The following rules for bathing are in force in the hospital:

1. The ordinary tub bath.—Disrobe in dressing room, temperature 80° F.; enter bathroom, temperature 102° to 105° F.; drink glass of hot water; lie 10 minutes in tub of water, temperature 98° F.; rub thoroughly until dry; return to dressing room and lie covered with light blanket for about 20 minutes. Effect is sedative or very mildly exciting. Indicated in all subacute and chronic disorders except wasting diseases, as tuberculosis, cancer, advanced Bright's disease, diabetes mellitus, weak heart and organic lesions; in skin diseases of squamous varieties, neurosis, subacute and chronic, ptyalism from mercury, aiding elimination of potassium salts while in action, incipient or subacute nephritis. Contraindicated in advanced locomotor ataxia and amebic dysentery.

2. *The tub sweat bath.*—Disrobe in dressing room, as above; lie in tub of water at 98° to 102° F. for 8 to 12 minutes; drink hot water freely; repair to vapor cabinet for 1 to 3 minutes; rub well for the second time, and wrap in blanket pack for 10 to 12 minutes in bathroom. The patient is then put under a shower at the temperature of his bath, dried, and allowed to lie in dressing room under blanket for 20 minutes. Effect is exciting and powerful in its action on the skin. Indicated in neurosis, acute, subacute, and chronic; eliminations of toxins and drugs, nicotinism and septic infections; syphilis. Contraindicated in same cases as the ordinary bath.

3. *The tonic tub bath.*—Disrobe as before in dressing room; enter a tub of water at 90° F., which is quickly raised to 98° to 100° F.; remain 8 to 10 minutes; drink freely of hot water. The patient then takes the vapor for 1 to 2 minutes, and after brisk rubbing stops under the circular and rain douche at 90° F. for only 6 seconds; rub dry and dress. Effect, tonic and stimulating. Indicated in neurasthenia, anemia, neuritis, malnutrition, and functional gastrointestinal disorders.

Massage or douche baths.—Any of the various forms of these baths may be directed by the medical officer in connection with any of the tub baths mentioned above.

(1) The circular needle douche, at varying temperatures and times, indicated in neuritis, neurasthenia, anemia, cardiac complications.

(2) Rain or shower douche, at varying temperatures and times. Generally combined with the needle douche, and useful in same class of cases.

(3) The Scotch douche: This consists in alternating jets of hot and cold water at varying temperatures and pressures. Indicated in sciatica and applied above the seat of pain; tabes dorsalis combined with coordinating movements.

(4) The Charcot douche: This is a jet douche, applied to the spine, of either hot or cold water, either intermittent or continued, and at varying temperatures and pressures. Indicated in tabes dorsalis, multiple neuritis, neurasthenia, and neuralgia of spinal origin.

(5) The perineal or prostatic douche varies in temperatures and pressure. Indicated in prostatic irritation and enlargements, spermatorrhea and chronic constipation.

(6) The liver and lumbar comb douche: Varying temperatures. Indicated in lumbago, renal disorders, and hepatic diseases, subacute and chronic.

(7) The sitz bath may be mentioned under this head, varying in temperatures and time. Indicated in chronic constipation, vesical and prostatic disorders.

The neighboring waters of value are: The potash sulphur, Mountain Valley, Allen's alterative water, and magnesia water. The first is useful in skin diseases and syphilis, and the Mountain Valley water is an excellent diuretic in kidney diseases. The two latter are eliminative through the skin and bowels.

The temperature of bathrooms should be 102° F. for the minimum, and not to exceed 106° F. for the maximum. The dressing or cooling room should be kept at from 80° to 82° F. Baths should not be taken ordinarily until 1½ hours after eating a full meal. If circumstances require the bath to be taken sooner, the meal should be very light. The enlisted men in this hospital commence bathing 2½ hours after breakfast. Baths should be discontinued upon any rise of temperature or recurrence of acute symptoms of the disease and only resumed when the subacute or chronic stage recurs. A bath should be omitted when a previous one has made the patient weak, relaxed, and faint, or when heart's action becomes especially weak. Upon admission patients are, as a rule, only allowed to bathe every other day until they become acclimated, so to speak.

Massage is indicated in all chronic cases of rheumatic affections, whether arthritic or muscular; in stiffness of the joints from whatever cause; in sciatica, general neurasthenia, enlargement of the liver and spleen without too much tenderness, and chronic constipation. Massage is also useful in subacute conditions of the same nature as above when the soreness will admit of it. This therapeutic agent should never be used in acute conditions.

Care must be taken to wash the kidneys out thoroughly before stimulating the skin too much, otherwise the urine being concentrated, the débris is not sufficiently dissolved and the kidneys become clogged, and the skin, by assuming too long the functions of the kidneys, leaves them helpless to resume work when it is absolutely needed. Therefore there should be a proper balance struck between the excretions of the organs mentioned. This can best be done by drinking freely of the thermal water, and this procedure is one of the most valuable forms of treatment. To be effective the water should be as hot as it can be borne and directly from the conduit. The urine is, therefore, frequently examined and the amount of solids estimated.

UNITED STATES ARMY GENERAL HOSPITAL, FORT BAYARD, N. MEX.

The buildings mentioned in the last annual report as under construction have been completed and are now in use. In addition to these a new set of quarters for ambulant patients is now nearly completed. The design of this building is to facilitate sleeping out of doors by affording protection from the wind. It is constructed after the old Spanish idea of an open court or patio, which is surrounded on all sides by narrow rooms intended for dressing rooms and in inclement weather for sleeping rooms. Patients will be required to sleep in the court in clear weather at all seasons of the year. It is expected that this building will be found an improvement over the tents which are now largely employed, as more perfectly excluding the winds while at the same time affording perfect ventilation.

Thirty-six hospital tents, accommodating 144 men, are now in use. These tents are floored and framed and are pitched in series of three. The flaps are thrown back so that three tents form virtually a single apartment in which 12 men are quartered. A small stove is placed in the center of each series for use during the colder weather, night and morning, while the patients are changing their clothes. Except at the hours for rising and retiring and during stormy weather, the sides of the tents are kept up. This affords the great advantage that the patients are able to rest in comfort even in cold weather while practically out of doors. It may be said that the use of tents, which was something of an experiment at first, has approved itself in practice throughout the year.

The extreme drought which was experienced in this region during the spring and summer of 1904 diminished the water supply of this hospital to such an extent as to produce great inconvenience. It became necessary to restrict the taking of baths and to use water for all purposes with great economy. Irrigation was entirely abandoned, and in consequence the dust storms which prevailed during the drought caused the patients much harm.

During the winter the unusual flow in the streams furnished an abundant supply of water and no scarcity is apprehended in the immediate future. It is hoped measures will be ultimately adopted which will result in the utilization of the entire subterranean flow in the valley of Cameron Creek. There is, however, little reason to doubt that even then the water supply will be inadequate for the needs of the institution and that it will be necessary to seek additional supplies of water elsewhere.

The number of cases treated during the year 1904 was 634, exclusive of minor cases of illness in men on duty. Of these 625 were cases of pulmonary tuberculosis. The cases of pulmonary tuberculosis are divided into four classes, as follows: (1) Afebrile cases without tubercle bacilli in the sputum; (2) approximately afebrile cases with tubercle bacilli in the sputum; (3) febrile cases in which the sputum contains tubercle bacilli; (4) febrile cases in which the sputum does not contain tubercle bacilli. The number in each class, with the results, are contained in the following table:

Class.	Number of cases.	Disease arrested.		Improved		Unimproved.		Died.	
		No.	*Per cent.*	*No.*	*Per cent.*	*No.*	*Per cent.*	*No.*	*Per cent.*
Class 1	93	5	5.38	82	88.17	5	5.38	1	1.07
Class 2	239	5	2.10	181	75.72	46	19.20	7	2.93
Class 3	283	1	.35	112	39.58	117	41.34	53	18.73
Class 4	10	1	10.00	4	40.00	5	50.00	......	....
Total	625	12	1.92	379	60.64	173	27.68	61	9.76

The term "disease arrested" is used in its strictest sense to denote the absence of all signs and symptoms of activity of the tuberculous process. In the case of a soldier it denotes that he is fit for duty. In most cases a patient has not been pronounced cured until he has been examined by a board of three medical officers, which is appointed to pass upon cases recommended for duty by the attending medical officer. In all but the most advanced cases improvement generally becomes apparent in weight and strength, in diminution of cough and expectoration, etc., after a stay of a few months. Such gains, however, do not always prove to be lasting, and cases are therefore not classed as "improved" in the above table unless physical examination shows a decrease in size of the pulmonary lesions as recorded upon admission, together with an improvement in the general condition.

Except in a few cases, which were considered capable of soon returning to duty, patients were formerly discharged from the Army after a stay of about two months at this hospital. They were immediately admitted as beneficiaries of the Soldiers' Home, so that their treatment could be continuous. As a matter of fact, however, all discharged soldiers who were able to travel, with a few exceptions, left the hospital and remained absent for several months or in many cases until it was evident that their health was becoming more impaired. In order to retain a hold upon the patients and to permit of continuous treatment for a longer period the average enlisted patient is now retained in the service about six months before he is discharged for disability. While the total number of cases treated during the year 1903 was 644 and in 1904 625, yet the cases remaining at the end of the year 1904 numbered 335 and those in 1903 but 257. It is evident, therefore, that the effect of this policy is to increase considerably the average number of patients. There can be no doubt of the advantages of early and continuous treatment, and it is hoped that patients may in time be educated to continue treatment at this hospital without intermission until they are entirely cured.

Formerly the regulations of the Soldiers' Home permitted its beneficiaries to go and come at will, but in 1904 the Board of Commissioners issued an order requiring inmates of the Home who take their discharge to remain absent for at least three months.. This rule was adopted here July 2, 1904, with marked advantages as respects the continuity of treatment.

Of the cases treated in 1904 120 were not under continuous treatment, or, in other words, were beneficiaries of the Soldiers' Home who had taken their discharge and been subsequently readmitted. The average time lost from treatment in these cases was seven months and fourteen days. Of these 120, 14 died during the year 1904.

The following table shows the duration of treatment in 61 fatal cases of pulmonary tuberculosis in 1904:

	Weeks.				Months.		Years.			Total.
	1.	2.	3.	4.	2 to 6.	7 to 12.	2.	3.	4.	
Time of death in 47 cases under continuous treatment	1	6	1	3	22	9	4	1	...	47
Time of death in 14 cases not under continuous treatment:										
A. Reckoned from last admission	3	...	1	...	5	4	1	...	...	14
B. Reckoned from original admission in same cases	...	...	...	...	...	1	4	5	4	(14)

Inspection of this table shows the effect upon death rate of the readmission of discharged patients. It will be observed that more than two-thirds of the deaths occur within six months after admission or readmission and nearly all within the first year.

Experiments in the effects of X-ray in the treatment of pulmonary tuberculosis on a small scale were started July 8, 1904, with eight advanced cases. The patients were exposed for fifteen minutes three times a week, the exposures being made alternately on the chests and backs with the Static machine. These exposures were continued until September 18, 1904. A thorough examination was made of each case before and after treatment. It was impossible to detect that a single case had improved under the exposures. No bad effect was noticed other than a slight erythema of the chest and back in three cases, which rapidly disappeared after the exposures were stopped.

In comparison with other methods the diagnosis by X-rays of slight tuberculous affections of the lungs has not proven as satisfactory either by fluoroscopy or skiagraphy. In conjunction with other methods the X-rays are of undoubted value in the diagnosis of pulmonary tuberculosis.

UNITED STATES ARMY GENERAL HOSPITAL, PRESIDIO OF SAN FRANCISCO, CAL.

The number of cases treated in this hospital during the year shows an increase of 133 admissions over 1903. Of these admissions, only 656 out of a total of 2,287 cases were from the Pacific Islands, less than half as many as for the corresponding period of last year; on the other hand, the admissions from the United States were nearly doubled. The discharges for disability were little more than half the number for last year; the number of deaths and insane were practically unchanged this year. Of the 46 deaths, 18 were due to pneumonia and 6 to tuberculosis of the lungs. The following is a numerical statement of the admissions and dispositions of sick during the calendar year 1904:

	From islands.	From United States.	Total.
Remaining in hospital Dec. 31, 1903	160	111	271
Total admissions during the period	656	1,631	2,287
For gunshot wounds	9	14	23
For diarrhea and dysentery	208	96	304
For malarial fevers	25	47	72
For typhoid fever	4	8	12
For rheumatic affections	27	47	74
For venereal diseases	51	273	324
For alcoholism	1	15	16
For injuries	36	177	213
For insanity	35	19	54
For all other causes	260	935	1,195
Total returned to duty	267	1,007	1,274
Total discharged for disability	98	94	192
Total discharged, expiration of service	146	92	238
Deaths from all causes	14	32	46
Desertions	6	12	18
Sent to Government Hospital for the Insane	29	12	41
Sent to general hospital, Fort Bayard, N. Mex	55	14	69
Sent to general hospital, Hot Springs, Ark	11	7	18
Sent to Alcatraz Island, California	1	0	1
Otherwise disposed of	115	216	331
Remaining in hospital Dec. 31, 1904	131	199	330

Daily average, 257.1.

Many important operations were done at this hospital, and the usual excellent results obtained. An interesting incident is the increasing frequency with which chloroform is being used as a general anesthetic in this institution. In 226 cases of general anesthesia the agents employed were as follows: Chloroform, 208; ether, 9; chloroform and ether, 9.

Assistant Surgeon Craig, the pathologist of the hospital, again calls attention to the steadily decreasing frequency with which malarial parasites are found in the blood of patients; this year there were 2,085 examinations, of which only 33 were positive; this is largely due to the diminishing frequency of malarial fevers among the soldiers in the Philippines. He also invites attention to the large proportion of patients from the Philippine Islands who show albumin and casts in the urine, these conditions disappearing usually after the patient has been in the hospital a few weeks.

UNITED STATES ARMY GENERAL HOSPITAL, WASHINGTON BARRACKS, WASHINGTON, D. C.

In 1898 the post hospital at Washington Barracks was changed by order of the Secretary of War to a general hospital, and later Company A of the Hospital Corps was attached to it. The usefulness of this hospital, under direct control of the Surgeon-General, for the treatment of special cases, for the examination and treatment of officers temporarily or permanently incapacitated, for training hospital-corps recruits in nursing, and for instruction in connection with the Army Medical School soon became so apparent that it was desired to make the institution permanent, particularly, also, as such permanent establishment would make a nucleus capable of quick expansion into a base hospital in time of war.

To meet all requirements it was necessary that a new and adequate hospital be erected on a suitable site. As stated in my previous reports, with the approval of the Secretary of War, this matter was first laid before Congress in 1902. It is a matter for congratulation that favorable action was secured last session, when $100,000 was appropriated for the purchase of a site and contracts up to $200,000 additional were authorized for building.

A site of 43½ acres on high ground, not far from the Soldiers' Home, with street-car and other facilities, has been recommended, and its purchase has been approved by the Secretary of War. On this site an adequate permanent building will be erected.

It is hoped that in time Congress will see the advisability of placing on these grounds a suitable academic building for the Army Medical School, a barrack for a company of Hospital Corps, officers' quarters and other buildings, and possibly also, with the city's expansion, a new building for the Library and Museum, Surgeon-General's Office, so making a complete medico-military establishment for medical and educational purposes which would be of inestimable value to the Medical Department and through it to the Army as a whole.

CARE OF DESTITUTE PATIENTS IN THE PROVIDENCE HOSPITAL, WASHINGTON, D. C.

The act approved March 28, 1904, having appropriated $19,000 for the support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with Providence Hospital by the Surgeon-General of the Army, the relief afforded was as follows:

Patients in hospital July 1, 1904	98
Admitted during the year	1,164
Total number treated	1,262
Average number admitted per month	105
Number remaining in hospital June 30, 1905	91
Total number of days' treatment afforded	37,246
Average number of days' treatment per patient	30
Average number of patients treated per day	102
Longest term of treatment (days)	365
Shortest term of treatment (day)	1
Number of patients in hospital during the whole year	2

HOSPITAL CONSTRUCTION AND REPAIR.

During the last fiscal year new modern hospitals were contracted for at Fort Caswell, N. C.; Fort Mott, N. J.; Fort Riley, Kans.; Fort Screven, Ga., and Fort Totten, N. Y.

Contracts were also entered into for enlarging the hospitals at Fort Ethan Allen, Vt.; Fort Leavenworth, Kans.; Fort Sheridan, Ill.; Fort Slocum, N. Y.; Fort Snelling, Minn.; and Fort Wadsworth, N. Y.

Funds were furnished to purchase material for the erection of a new hospital at Fort Egbert, Alaska; and a central dispensary for use in connection with the hospital at Fort Moultrie, S. C., was contracted for. A solarium has been added to the hospital at Fort Myer, Va., and the hospital at Fort Monroe, Va., has been further improved.

Plans and specifications were prepared for the above hospitals and improvements, also for new hospitals at Fort Andrews, Mass.; Indianapolis, Ind.; Fort Levett, Me.; Camp William McKinley, Honolulu; Fort Michie, N. Y.; Fort Mackenzie, Wyo.; Fort Omaha, Nebr.; Point Bonita, Cal.; Fort Stark, N. H.; Fort Wetherill, R. I.; Fort Wood, N. Y., and for an additional story for the hospital at Fort Casey, Wash. Some of these hospitals are now under contract, some are on the market for proposals, while others are being erected by the Quartermaster's Department.

Funds have been provided for hospital improvements in the Philippine Islands; to enlarge and improve the hospital at Fort Assinniboine, Mont.; to enlarge and improve the United States army general hospital at Fort Bayard, N. Mex., including the fitting up of a gymnasium and amusement hall; to enlarge and improve the United States army general hospital at the Presidio of San Francisco, Cal., including the addition of a second story to the administration building; to cover all repairs and improvements needed for the Army and Navy General Hospital, Hot Springs, Ark., and for such repairs as were actually necessary at Washington Barracks, D. C.

In addition to the above, all hospitals at military posts have been kept in repair, operating rooms in some instances have been modernized and such improvements made as the limited amount of funds would permit.

Owing to the limitation fixed by section 1136 of the Revised Statutes, it is not possible to erect modern hospitals at various posts. This statute was enacted March 3, 1859, when conditions were vastly different. To meet present demands it is not practicable to erect a modern and sanitary hospital for 12 patients, thoroughly equipped, for $20,000. At the most accessible posts proposals have to be invited several times, and essential portions of the buildings have to be omitted before contracts can be made. This method causes delay, and not only involves the cost of changing the plans and specifications and readvertising, but requires an additional outlay for installing omitted portions at a greater expense, which procedure is neither economical nor advantageous to the Government. It is recommended that section 1136 of the Revised Statutes be amended to read, "fifty thousand dollars," instead of "twenty thousand dollars," in order to overcome the increased cost of material and labor since the enactment of the law in 1859.

It may be possible to erect a small hospital for 12 beds in one locality for $25,000, while in another section of the country a similar building would cost over $30,000, the advance being due to the isolated situation entailing an extra cost for transportation, and lack of competition. These small hospitals, in addition to a ward of 12 beds, furnish quarters for 8 attendants and are provided with an office, dispensary, mess room, kitchen, laboratory, operating room, instrument room, isolation ward, officers' ward, ward masters' room, room for patients' effects, linen room, a dark room for the examination of the eyes, etc., lavatories, storerooms, boiler room, and fuel room, all of which are necessary. The cost of erecting larger hospitals is less in proportion to size.

New quarters for sergeants, first class, Hospital Corps, have been contracted for at Fort Mason, Cal., and Fort Totten, N. Y. The quarters at various posts have been improved and minor repairs made where absolutely necessary. Owing to the increased cost of material and labor it is not possible to meet all requirements from the appropriations authorized and larger amounts should be provided to meet the growing demands.

MEDICAL AND HOSPITAL SUPPLIES.

The amount estimated for by this office for medical and hospital appropriation for the fiscal year ending June 30, 1905, was $650,000. This was reduced by the War Department to $550,000, which was appropriated by Congress. This amount was not sufficient to properly meet all the wants of the Medical Department, which in the matter of supplies has had to be administered somewhat parsimoniously. It has also been impossible to replace the field equipment issued to the organized militia of States, transfer of funds for which was as a rule made too late in the year to be available.

Field medical equipment has been issued to the organized militia of States under the act approved March 2, 1903, and section 1661 Revised Statutes, as follows:

Alabama	$96.05
Connecticut	1,549.55
Florida	386.84
Georgia	1,411.74
Illinois	1,683.60
Indiana	186.83
Louisiana	367.57
Maine	247.84
Maryland	61.00
Massachusetts	160.99
Michigan	221.14
Mississippi	1,522.72
Missouri	542.26
Nebraska	744.33
New Jersey	1,416.87
New Mexico	55.66
New York	$4,586.76
North Dakota	89.23
Ohio	1,705.90
Oregon	1,146.69
Pennsylvania	2,686.61
Tennessee	672.36
Texas	12.00
Utah	27.83
Vermont	746.58
Virginia	342.66
West Virginia	119.50
	22,791.11
Issued to Navy Department	250.14
Total	23,041.25

There having been difficulty in securing promptly medical and hospital supplies for the sanitary service of the Isthmian Canal Commission, a request was made by that Commission that the Secretary of War authorize the Medical Department of the Army to act as their purchasing agent for such supplies, which request was approved April 28, 1905. The Medical Department was at the same time authorized to issue supplies from stock on hand for use in the Canal Zone, the value of which is transferred to the medical and hospital account on the books of the Treasury Department. This system has worked satisfactorily. A very large amount of medical and hospital supplies has been purchased and promptly forwarded to the Isthmus, in addition to issues from stock on hand to the amount of over $10,000. This work has been done by the regular personnel of the Medical Department without other assistance than an additional clerk, whose salary is paid by the Commission and who is employed in the preparation of their vouchers.

The field medical supply depot, which was located in the basement of the Army Medical Museum building, having become too small for the needs of the service, has been moved to a building rented for the purpose, 1229 Twentieth street N. W., Washington, D.C. Although the fireproof portion of this building, amounting to about one-third of it, has been retained by the Quartermaster's Department for other purposes, the amount turned over to the Medical Department is sufficient for present needs and admits of the assembling of additional field hospitals at this depot. Accordingly, on May 10, 1905, instructions were issued for the assembling, in addition to the five mentioned in the preceding report, of the following field hospitals, complete in every respect with ordnance, tentage, and other quartermaster's equipment, except transportation.

Nos. 6, 7, 8, 9, 10, and 11 at the field medical supply depot, Washington, D. C.

Nos. 12, 13, and 14 at the medical supply depot, Manila, P. I.

Nos. 15, 16, and 17 at the medical field storehouse in connection with the medical supply depot, St. Louis, Mo.

The War Department has authorized the assembling of regimental hospitals at the following posts, in addition to the 19 enumerated in General Orders 75, War Department, December 31, 1903: Fort Assinniboine, Mont.; Fort Crook, Nebr.; Fort D. A. Russell, Wyo.; Fort Des Moines, Iowa; Madison Barracks, N. Y.; Fort Niobrara, Nebr.; Fort Oglethorpe, Ga.; Presidio of Monterey, Cal.; Fort Robinson, Nebr.; Fort Walla Walla, Wash.

The following are the medical supply depots:

Location.	Officer in charge.	Number of posts and stations supplied.
New York City, N. Y., 391 Washington street.	Lieut. Col. H. S. Turrill, deputy surgeon-general, U. S. Army.	72
St. Louis, Mo., 204 South Eighth street [a]	Lieut. Col. L. W. Crampton, deputy surgeon-general, U. S. Army.	37
San Francisco, Cal., 655 Mission street.	Maj. Louis Brechemin, surgeon, U. S. Army	33
Manila, P. I., Calle Concepcion	Lieut. Col. D. M. Appel, deputy surgeon-general, U. S. Army.	121
Field Medical Supply Depot, 1229 Twentieth street N.W., Washington, D. C.	Capt. C. R. Darnall, assistant surgeon, U. S. Army.	[b]

[a] This depot has on hand and issues field equipment.
[b] Field equipment for Army and organized militia.

The date of issue of annual supplies to the various posts has been changed in order to distribute evenly throughout the year the work at the depots. Instead of issuing all annual supplies on the 1st of January and 1st of July, as formerly, the issues are now made January 1, April 1, July 1, and October 1.

Experiments have been made during the year to develop a portable coil X-ray machine which could be conveniently transported in the field on an army wagon. A useful type has been adopted, which is actuated by its own motor with gasoline or petroleum fuel. It weighs, approximately, 1,200 pounds when packed. Six of these machines have been ordered from the manufacturers and will be issued to army posts.

ARMY MEDICAL MUSEUM.

The total number of specimens in the Army Medical Museum at the end of the fiscal year June 30, 1905, was 35,054. The following statement shows in detail the additions and changes in the different sections:

Pathological section:		
In museum June 30, 1904		12,614
Discarded		55
		12,559
Transferred from anatomical section		1
Transferred from provisional pathological section		1
Received during the year		98
In museum June 30, 1905		12,659
Anatomical section:		
In museum June 30, 1904		1,168
Discarded	1	
Transferred to pathological section	1	
		2
		1,166
Received during the year		4
In museum June 30, 1905		1,170
Section of comparative anatomy:		
In museum June 30, 1905		1,410
Microscopical section:		
In museum June 30, 1905		12,916
Miscellaneous section:		
In museum June 30, 1904		2,831
Discarded	5	
Transferred to U. S. National Museum	7	
		12
		2,819
Received during the year		115
In museum June 30, 1905		2,934
Provisional pathological section:		
In museum June 30, 1904		1,201
Discarded	126	
Donated to Georgetown University medical school	2	
Donated to students	21	
Transferred to pathological section	1	
		150
In museum June 30, 1905		1,051
Provisional anatomical section:		
In museum June 30, 1904		396
Discarded	12	
Donated to students	6	
		18
In museum June 30, 1905		378
Photographic series:		
In museum June 30, 1904		2,531
Received during the year		5
In museum June 30, 1905		2,536

RECAPITULATION.

Specimens in museum June 30, 1904	35,067
Discarded, transferred, and donated	235
	34,832
Added during the year	222
Specimens in museum June 30, 1905	35,054

The following are some of the more interesting specimens received during the fiscal year ending June 30, 1905:

Anatomical.—Specimens 4059 and 4060: A specimen of the hagfish and one of the elephant fish; from the U. S. National Museum.

Pathological.—Specimens 13007 to 13016: Twelve Buchhold preparations showing various pathological conditions; purchased.

Malformations, specimen 12954: Pseudohermaphroditism in pig; purchased. Specimen 12968: Anencephalus in a human fetus of 6 months; contributed by Dr. W. J. Dillenbach, Washington, D. C. Specimen 12957: Hypertrophy and distension of urinary passages from valvular obstruction of urethra, with other anomalies, in a 7-months human fetus; contributed by Dr. J. J. Repetti, Washington, D. C. Specimen 12962: Overriding of toes in a human fetus, both parents of which had a similar malformation; contributed by Dr. Mary Parsons, Washington, D. C. Specimen 12963: Dicephalus; two heads and two vertebral columns in a salmon; contributed by Mr. H. O. Hall, Washington, D. C. Specimen 12952: Thoracopagus in a 5-months human fetus; contributed by Dr. E. C. C. Winter, Washington, D. C. Specimen 12965: Thoracopagus in a new-born lamb; two hearts in one pericardium; purchased. Specimen 12976: Dipygus parasiticus in a chicken; contributed by Dr. D. S. Lamb, Washington, D. C.

Infectious diseases.—Specimen 12950: Tuberculous jaw of a monkey that died of general tuberculosis; contributed by Dr. A. Hrdlicka, U. S. National Museum. Specimen 12999: Tuberculous ileum; case of general tuberculosis; contributed by Dr. G. N. Acker, Washington, D. C. Specimen 12961: Tuberculous testicle from a soldier; removed and contributed by First Lieut. C. N. Barney, assistant surgeon U. S. Army. Specimen 12939: Congenital syphilis of bones of 6-months human fetus; contributed by Dr. A. Hrdlicka, U. S. National Museum. Specimen 13000A: Congenital syphilis of bones with marked deformity in a girl 11 years old; contributed by Dr. G. N. Acker, Washington, D. C. Specimens 12982 to 12993: Twelve wax models showing diphtheria of the air passages and upper part of alimentary canal; purchased.

Diseases and injuries of the bone.—Specimen 12936: Primary amputation of foot and leg because of compound fracture accidentally received; in a retired army officer, age 67; recovery; operator and contributor, Maj. W. C. Borden, surgeon, U. S. Army. Skiographs of the fractured limb were also contributed by Major Borden. Specimens 13017 to 13021: Five specimens of bones from Indian mounds showing inflammation, hip joint disease and fracture with repair; contributed by C. B. Moore, Philadelphia, Pa. Specimen 12938: Fractured skull from the Custer battlefield; contributed by First Lieut. James Carroll, assistant surgeon, U. S. Army. Specimen 12940: Osteoporosis of skull of child; contributed by Dr. A. Hrdlicka, U. S. National Museum. Specimen 12980: Osteosarcomo of fibula; in a boy, 9 years old; removed and contributed by Dr. J. Ford Thompson, Washington, D. C.; recovery.

Circulatory system.—Specimens 12942 to 12945: Hypertrophy and dilatation of heart from valvular disease; in an old man who had also cystic disease of kidneys; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12978: Aneurism of arch of aorta rupturing into left pleura; several vertebræ were eroded; in a soldier who suddenly fell dead; contributed by Capt. Geo. A. Skinner, assistant surgeon, U. S. Army. Specimen 13004: Large aneurism of arch of aorta in a man, age 32; contributed by Capt. W. P. Chamberlain, assistant surgeon, U. S. Army.

Brain.—Specimens 12998 to 13000: Porencephalus in a girl 11 years old, who had also congenital syphilis of bone, and died of general tuberculosis; the heart was much atrophied, weighing less than that of a normal infant at 18 months; contributed by Dr. G. N. Acker, Washington, D. C. Specimens 12946 to 12949: Fibroma of brain weighing 6 ounces, from a boy, age 14. The tumor had perforated the skull; removed during life, but the boy died soon after the operation; operator and contributor, Dr. D. P. Hickling, Washington, D. C.

Respiratory system.—Specimens 12973 and 12974: Primary adenocarcinoma of thyroid and secondary adenocarcinoma of lung; in a woman, age 50; contributed by Dr. T. C.

Smith, Washington, D. C. Specimen 12964: Cystic polypus removed from nose; operator and contributor, Dr. W. K. Butler, Washington, D. C. Specimen 12943: Chronic ulcerative laryngitis, not specific; in a man, age 27; death from obstruction by muco-pus; contributed by Dr. D. S. Lamb, Washington, D. C. Specimens 12958 and 12959: Crupous pneumonia and acute pericarditis; in a man, age 41, who worked "in a damp place;" contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 12979: Calcareous pleurisy; contributed by Dr. J. E. Meisenhelder, Soldiers' Home, Washington, D. C.

Digestive system.—Specimen 12966: Fibroid tonsil; from a woman, age 35; operator and contributor, Dr. R. S. Lamb, Washington, D. C. Specimens 12969 to 12972: Primary cancer of liver, secondary cancer of lung; also tuberculous kidney; from a woman; heart extremely atrophied, weighing only 5 ounces; contributed by Dr. G. N. Acker, Washington, D. C. Specimen 12944: Solitary cyst of liver, not parasitic; in a man, age 62; contributed by Dr. D. S. Lamb, Washington, D. C. Specimen 13005: Invagination of ileum and colon in an infant; contributed by Dr. G. W. Wood, Washington, D. C. Specimen 12967: Shot perforation of small intestine; in a soldier; the stomach also was perforated and liver lacerated; death in a few hours; contributed by First Lieut. G. H. R. Gosman, assistant surgeon, U. S. Army. Specimen 13028: Hemorrhagic pancreatitis; contributed by Dr. W. M. L. Coplin, Philadelphia, Pa.; a beautiful preparation, mounted in gelatin in a Petri dish. Specimen 13002: Large accessory spleen, contributed by Dr. D. S. Lamb, Washington, D. C.

Peritoneal and retroperitoneal tumors.—Specimen 13006: Myoma of peritoneum; in a woman; removed; post-mortem; contributed by Dr. G. W. Wood, Washington, D. C. Specimen 12996: Large retroperitoneal fibro-lipoma; removed and contributed by Dr. Geo. Ben. Johnston, Richmond, Va. Specimen 12997: Retroperitoneal fibroma weighing 16½ pounds; from a women, age 50; removed and contributed by Dr. I. S. Stone, Washington, D. C.; recovery. Specimen 12960: Large retroperitoneal sarcoma; from a woman, age 41; removed; post-mortem; no secondary growths; contributed by Dr. D. P. Hickling, Washington, D. C.

Urinary and genital system.—Specimens 13025 and 13026: Cystitis and pyelitis; in a soldier who had tabes dorsalis; contributed by Maj. Wm. H. Arthur, surgeon, U. S. Army. Specimen 12951: Sarcoma of kidney; in a girl, 5 years old; removed and contributed by Dr. James Kerr, Washington, D. C.; recovery. Specimen 12956: Penis amputated because of gangrene following chancroid; in a soldier; removed by First Lieut. W. A. Powell, assistant surgeon, and contributed by Maj. F. R. Keefer, surgeon, U. S. Army.

Gynecology.—Specimen 12977: Hysterectomy for uterine fibroid; woman, age 27; recovery; operator and contributor, Dr. D. P. Hickling, Washington, D. C. Specimen 13027: Hysterectomy for uterine fibroid; contributed by Dr. J. W. Bovée, Washington, D. C. Specimen 13033: Extirpation of uterine fibroid; woman, age 23; operator and contributor, Dr. W. A. Warfield. Specimen 13022: Pus tubes and ovarian cyst; removed and contributed by Dr. J. W. Bovée, Washington, D. C.

Skin.—Specimen 12994: Congenital fibro-lipoma; in a girl, age 9 years; removed and contributed by Dr. J. Ford Thompson, Washington, D. C.

Dentistry.—Specimens 13029 to 13032: Teeth showing anomalous number and fusion of roots; contributed by Dr. J. H. London, Washington, D. C.

Miscellaneous.—Microscopes of the more recent patterns have been added, as follows: Specimen 2990, Bausch and Lomb; specimen 2927, Beck; specimen 3033, Greenough; specimen 3036, Van Heurck; specimen 2950, Leitz; specimen 2987, Nebelthau; specimen 2928, Seibert; specimens 2933, 2993, Spencer; specimen 3032, Watson, and specimen 3001, Zeiss.

Specimens 3040, 3041: Old dental scalers and automatic mallet; contributed by Dr. W. N. Cogan, D. D. S., Washington, D. C. Specimen 3035: Old set of trial glasses for eye work; contributed by Dr. W. M. Phelps, Washington, D. C. Specimen 3025: Poisoned arrow heads used by the Itos tribe, Luzon; contributed by Dr. H. J. Harris, contract surgeon, U. S. Army. Specimens 3027, 3028: Piorry and Laennec stethoscopes, contributed by Dr. D. S. Lamb, Washington, D. C.

Also the following photographs: Specimen 2594: Multiple fibromata of skin in a Javanese woman and specimen 2593, elephantiasis in two Samoans; contributed by J. E. Standley, Seattle, Wash. Specimen 2592: Multiple fibromata of skin in a Filipino; contributed by First Lieut. R. B. Miller, assistant surgeon, U. S. Army.

LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

The following table shows the additions made to the library during the fiscal year 1904–5:

Description.	On hand June 30, 1904.	Added during fiscal year.	Total June 30, 1905.
	Volumes.	*Volumes.*	*Volumes.*
Medical journals	46,023	1,290	47,313
Medical transactions	7,341	124	7,465
Bound theses	2,319	....	2,319
Bound pamphlets	2,875	....	2,875
Other medical books	93,309	2,011	95,320
Total	151,867	3,425	155,292
Medical theses	68,854	2,296	71,150
Medical pamphlets	193,540	7,161	200,701
Total	262,394	9,457	271,851

There were presented to the library during the year 570 books and 9,490 pamphlets and journals.

Volume X, second series, of the Index Catalogue, includes the letter M to "Mnikhovski," and forms a volume of 935 pages. It will be ready for distribution at the usual time. The appropriation for Volume XI, second series, having been made, the manuscript is in course of preparation for the printer.

An appropriation of $8,000 having been made at the last session of Congress for the construction of the additional bookshelves so badly needed, contracts have been made for these stacks similar to those now in use, and it is hoped that the work will be completed before the winter.

ARTIFICIAL LIMBS AND APPARATUS.

Under the laws relating to artificial limbs, apparatus, or commutation therefor, orders on manufacturers were given during the fiscal year for 32 legs, 2 arms, and 2 feet, and commutation certificates were issued for 155 cases of amputated leg, 84 amputated arm, 9 amputated foot, and for 1,820 cases of the loss of use of a limb.

Under the act of June 17, 1870, and subsequent amendments thereto, 23,005 disabled soldiers and sailors have been furnished artificial limbs or apparatus, or have received commutation in money, as follows: Total number benefited to June 30, 1905, 23,005; died, 9,684; dropped from the rolls, 592; rejected after one or more payments, 552; remaining on rolls at the end of the fiscal year, 12,153.

It is estimated that the sum of $145,000 will be required to pay the claims coming due during the fiscal year ending June 30, 1907.

APPLIANCES AND TRUSSES.

One hundred fifty-nine appliances were issued during the fiscal year and 771 trusses were furnished and fitted.

CARD SYSTEM.

The card system for the register of patients and report of sick and wounded has been adopted, the change being in the direction of simplicity and efficiency and preventing the duplication of work in this office and at posts.

CLASSIFICATION OF DISEASES.

Since last year it has been found necessary to still further modify the nomenclature of diseases to keep pace with the advances in our knowledge of etiology and pathology. Medical officers in recording the causes of admission to sick report will hereafter make use of the following list as far as practicable:

I.—General Diseases.

(a) *Epidemic diseases.*

1. Typhoid fever.
2. Exanthematic typhus.
3. Relapsing fever.

Malarial fevers.
  1. Nonmalignant infections.
4. (a) Intermittent.
5. (b) Remittent or continued.
  2. Malignant (estivoautumnal) infections.
6. (a) Intermittent.
7. (b) Remittent or continued.
8. (c) Pernicious.
9. 3. Malarial cachexia.
10. 4. Hemoglobinuric fever.
11. Smallpox.
12. Measles.
13. Scarlet fever.
14. Whooping cough.
15. Diphtheria.
16. Influenza.
17. Miliary fever.
18. Asiatic cholera.
19. Cholera nostras.

Dysentery.
20. 1. Amebic.
21. 2. Bacillary.
22. 3. Mixed infections and other dysenteries.
23. Bubonic plague.
24. Yellow fever.
25. Leprosy.
26. Erysipelas.
27. Cerebrospinal meningitis, epidemic.
28. Beriberi.
29. Dengue.
30. Mumps.
31. Rubella.
32. Varicella.
33. Vaccinia.
34. Kala-Azar (trypanosomiasis?).
35. Malta fever.
36. Acute infectious jaundice (Weil's disease).
37. Yaws (Frambesia).
38. Epidemic dropsy.
39. Other epidemic diseases.

(b) *Other general diseases.*

40. Purulent infection and septicemia.
41. Glanders and farcy.
42. Anthrax.
43. Rabies.
44. Actinomycosis.
45. Trichinosis.
46. Pellagra.
47. Tuberculosis of the larnyx.
48. Tuberculosis of the lungs.
49. Tuberculosis of the meninges.
50. Tuberculosis of the abdomen.
51. Tuberculosis of the bones and joints.
52. Tuberculosis of other organs.
53. General tuberculosis.

Syphilis and results.
54. Syphilis, primary.
55. Syphilis, secondary.
56. Syphilis, tertiary.
57. Syphilis, hereditary.

Chancroids and results.

I.—General Diseases—Continued.

(b) *Other general diseases*—Continued.

58. Chancroids.
59. Chancroidal bubo.

Gonorrhea and results.
60. Gonorrhea.
61. Gonorrheal epididymitis and orchitis.
62. Gonorrheal ophthalmia.
63. Gonorrheal rheumatism.
64. Gonorrheal stricture of the urethra.
65. Gonorrheal bubo.
66. Other results of gonorrhea.
67. Other venereal diseases.
68. Cancer and other malignant tumors of the buccal cavity.
69. Cancer and other malignant tumors of stomach, liver.
70. Cancer and other malignant tumors of the peritoneum, intestines, rectum.
71. Cancer and other malignant tumors of other organs and unspecified.
72. Other tumors.
73. Acute articular rheumatism.
74. Rheumatism, articular, subacute, and chronic.
75. Gout.
76. Scurvy.
77. Diabetes.
78. Exophthalmic goiter.
79. Addison's disease.
80. Leukemia.
81. Anemia.
82. Other general diseases.
83. Acute alcoholism.
84. Delirium tremens.
85. Chronic alcoholism.
86. Chronic lead poisoning.
87. Other chronic poisonings (occupational).
88. Drug habit.
89. Narcotic poisonings, chronic.
90. Other chronic poisonings.

II.—Diseases of the Nervous System and of the Organs of Special Sense.

(a) *Of the nervous system.*

91. Encephalitis.
92. Meningitis, cerebral.
93. Meningitis, spinal.
94. Progressive locomotor ataxia.
95. Other diseases of the spinal cord.
96. Cerebral congestion and hemorrhage.
97. Cerebral thrombosis and embolism (softening of the brain).
98. Paralysis, without specified cause.
99. General paralysis.
100. Insanity.
101. Hypochondriasis.
102. Melancholia.
103. Nostalgia.
104. Epilepsy.
105. Tetanus.
106. Chorea.
107. Neuralgia.
108. Neuritis.
109. Neurasthenia.
110. Other diseases of the nervous system.

II.—DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SOCIAL SENSE—Continued.

(b) *Of the eye and its adnexa.*

111. Chalazion.
112. Trachoma.
113. Other diseases of the lids.
114. Lachrymal apparatus, diseases of.
115. Conjunctivitis, acute.
116. Conjunctivitis, chronic.
117. Pterygium.
118. Keratitis.
119. Sclerotitis.
120. Choroid, diseases of.
121. Iritis (nonvenereal).
122. Retinitis.
123. Snow-blindness.
124. Asthenopia.
125. Cataract.
126. Glaucoma.
127. Amblyopia.
128. Amaurosis.
129. Night-blindness.
130. Errors of refraction.
131. Other diseases of the eye and its adnexa.

(c) *Of the ear and its adnexa.*

132. Diseases of the external ear.
133. Diseases of the tympanum.
134. Diseases of the middle and internal ear.
134½. Diseases of the mastoid.
135. Deafness.
136. Other diseases of the ear and its adnexa.

III.—DISEASES OF THE CIRCULATORY SYSTEM.

137. Pericarditis.
138. Acute endocarditis.
139. Organic diseases of the heart.
140. Angina pectoris.
141. Aneurism.
142. Other diseases of the arteries.
143. Embolism and thrombosis (except cerebral).
144. Varicocele.
145. Varicose veins.
146. Hemorrhoids.
147. Phlebitis.
148. Other diseases of the veins.
149. Adenitis, nonvenereal.
150. Lymphangitis, nonvenereal.
151. Climatic bubo.
152. Other diseases of the lymphatic system.
153. Hemorrhages.
Filariasis.
154. 1. Lymphatic varix.
155. 2. Lymph scrotum.
156. 3. Chyluria.
157. 4. Chylocele.
158. 5. Lymphangitis and elephantoid fever.
159. 6. Elephantiasis.
160. Trypanosomiasis.
Distomiasis (Bilharzia disease).
161. 1. Endemic hematuria.
162. 2. Rectal Bilharziosis.
163. Other parasitic diseases of the circulatory system.
164. Functional disease of the heart.
165. Other diseases of the circulatory system.

IV.—DISEASES OF THE RESPIRATORY SYSTEM.

166. Coryza.
167. Chronic nasal catarrh.
168. Nasal polypus.
169. Myiasis of the nasal fossæ.
170. Other diseases of the nasal fossæ.
171. Diseases of the larynx. (Nontubercular).
172. Diseases of the thyroid body.
173. Acute bronchitis.
174. Chronic bronchitis.
175. Broncho-pneumonia.
176. Pneumonia.
177. Pleurisy.
178. Congestion of the lungs.
179. Gangrene of the lungs.
180. Asthma.
181. Pulmonary emphysema.
182. Endemic hemoptysis (Distomiasis).
183. Other diseases of the respiratory system, phthisis excepted.

V.—DISEASES OF THE DIGESTIVE SYSTEM.

184. Diseases of the salivary glands and ducts.
185. Diseases of the teeth, gums, and alveoli.
186. Diseases of the mouth and tongue.
187. Tonsillitis.
188. Other diseases of the pharynx.
189. Diseases of the esophagus.
190. Ulcer of the stomach.
191. Dyspepsia.
192. Gastritis.
193. Other diseases of the stomach, except cancer.
194. Diarrhea, acute.
195. Diarrhea, chronic.
196. Enteritis.
197. Colic, intestinal.
198. Sprue.
Intestinal parasites.
199. 1. Tænia mediocanellata (or saginata).
200. 2. Tænia solium.
201. 3. Tænia nana.
202. 4. Bothriocephalus latus.
203. 5. Distomida.
204. 6. Ascaris lumbricoides.
205. 7. Oxyuris vermicularis.
206. 8. Ankylostoma duodenale.
207. 9. Uncinaria Americana.
208. 10. Trichocephalus dispar.
209. 11. Other intestinal parasites.
210. Inguinal hernia.
211. Other herniæ.
212. Intestinal obstruction.
213. Constipation.
214. Fistula in ano.
215. Other diseases of the intestines.
216. Acute yellow atrophy of the liver.
217. Hydatid tumors of the liver.
218. Cirrhosis of the liver.
219. Biliary calculi.
220. Congestion of the liver.
221. Acute hepatitis.
222. Hepatic abscess.
223. Jaundice, catarrhal.
224. Other diseases of the liver.
225. Diseases of the spleen.
226. Simple peritonitis.
227. Appendicitis and abscesses of iliac fossæ.
228. Other diseases of the digestive system, cancer and tuberculosis excepted.

VI.—DISEASES (NONVENEREAL) OF THE GENITO-URINARY SYSTEM.

229. Acute nephritis.
230. Chronic nephritis.
231. Pyelitis and pyelonephritis.
232. Other diseases of the kidneys.
233. Renal calculi.
234. Vesical calculi.
235. Cystitis.
236. Other diseases of the bladder.
237. Stricture of the urethra.
238. Other diseases of the urethra.
239. Prostatitis.
240. Prostatic hypertrophy.
241. Other diseases of the prostate.
242. Balanitis.
243. Paraphimosis.
244. Phimosis.
245. Hematocele.
246. Hydrocele.
247. Orchitis.
248. Other nonvenereal diseases of the genital organs.

VIII.—DISEASES OF THE SKIN AND CELLULAR TISSUE.

249. Gangrene.
250. Carbuncle.
251. Furuncle.
252. Acute abscess, phlegmon.
253. Corn and warts.
254. Ingrowing nails.
255. Chilblain.
256. Tropical ulcer.
256½. Sloughing phagedena.
257. Ulcers, other.
258. Dermatitis from poisonous plants.

VIII.—DISEASES OF THE SKIN AND CELLULAR TISSUE—Continued.

259. Prickly heat.
260. Erythemata.
261. Herpes.
262. Eczema and pemphigus.
263. Impetigo and acne.
264. Urticaria.
265. Scabies.
266. Dhobie itch.
267. Jiggers.
268. Pemphigus contagiosus.
269. Mycetoma.
270. Tinia imbricata.
271. Ground itch.
272. Filaria medinensis.
273. Other parasitic diseases.
274. Other diseases of the skin and cellular tissue.

IX.—DISEASES OF ORGANS OF LOCOMOTION.

275. Osteomyelitis.
276. Caries and necrosis of bone, nontubercular.
277. Periostitis.
279. Other nontubercular diseases of the bones.
280. Arthritis.
281. Bunion.
282. Tendo-synovitis.
283. Synovitis.
284. Bursitis.
285. Other diseases of the joints, except tuberculosis and rheumatism.
286. Muscular rheumatism and myalgia.
287. Other diseases of the organs of locomotion.

X.—MALFORMATIONS, ETC.

288. Congenital malformations and arrested development.

XII.—OLD AGE.

289. Senile debility.

XIV.—ILL-DEFINED DISEASES.

290. Sudden death.
291. Malingering.
292. Febricula, simple continued, and other undetermined fevers.
293. Debility following operation and disease.
294. Exhaustion from overexertion and exposure.
295. Under observation, undiagnosed, and unknown.

XIII.—EXTERNAL CAUSES.

296. Fractures of the skull.
297. Fractures of the spinal column.
298. Other fractures, exclusive of gunshot.
299. Dislocations.
300. Sprains.
301. Strain, muscular.
302. Abrasions and blisters (mechanical).
303. Concussion of the brain.
304. Concussion of the spine.
305. Contusions.
306. Wounds, contused.
307. Wounds, incised.
308. Wounds, lacerated.
309. Wounds, punctured.
310. Wounds, gunshot.
311. Crushing.
312. Other traumatisms.
313. Secondary results of injuries.
314. Burns and scalds.
315. Burns by corrosive substances.
316. Sunstroke.
317. Heat exhaustion.
318. Frostbite.
319. General freezing.
320. Electric shock.
321. Drowning.
322. Inanition (starvation, exclusive of disease).
323. Absorption of deleterious gases.
324. Narcotic poisonings, acute.
325. Corrosive and irritant poisonings, acute.
Venomous bites, stings, and wounds.
326. 1. Snake bites.
327. 2. Other venomous bites.
328. Other acute poisonings.
329. Explosions.
330. Suffocation, exclusive of disease.
331. Foreign bodies, presence of.
332. Other external violence.

SUBCLASSIFICATION (INCLUDED ABOVE).

Suicide by poison.
Suicide by asphyxia.
Suicide by hanging or strangulation.
Suicide by drowning.
Suicide by firearms.
Suicide by cutting instruments.
Suicide by jumping from high places.
Suicide by crushing.
Suicide by other means.
Homicide.
Judicial execution.
Self-maiming.
Killed in action.
Wounded in action.
Died of wounds in action.

REMARKS AND SPECIAL RECOMMENDATIONS.

RELATION OF THE MEDICAL DEPARTMENT TO HYGIENE AND SANITATION OF THE ARMY.

One of the most important duties of the Medical Department of the Army, and that which is placed first in the Army Regulations on the subject, is that of investigating the sanitary condition of the Army and making recommendations in reference thereto. This is done by means of monthly and special sanitary reports, which thereby become of great value in showing the actual sanitary condition of the Army and the important defects and the measures taken or recommended for their correction.

In the new Army Regulations, 1904, the following words are added to paragraph 1413:

> The Medical Department is charged with the duty * * * "of advising with reference to the location of permanent camps and posts, the adoption of systems of water supply and purification, and the disposal of wastes."

This sets forth more specifically the relation of the Medical Department to such matters and constitutes an important step in advance. Under this paragraph sanitary questions which are disposed of at a post, department headquarters, or the headquarters of the Army, should be so disposed of only after obtaining officially the advice of the post surgeon, the chief surgeon of the department, or the Surgeon-General, as the case may be.

With the extension of military occupation to tropical countries at long distances over sea, the relation of the Medical Department to all matters in which sanitary questions are of the first importance should be still more clearly defined and should be binding upon the higher authorities.

The location, construction, and arrangement of barracks and quarters for occupation in the Tropics involves many points of the greatest importance in the prevention of disease. The same applies to transportation for long distances by sea and rail.

The Army Regulations should state specifically that except in emergency no troops should be allowed to embark on ship or rail until the opinion of a medical officer has been obtained that the ship or cars are suitable from a sanitary point of view.

Great improvement continues to be made in the character of the quarters constructed for the use of the Army; nevertheless, when important construction, alteration, or repairs are contemplated, the regulations should require that the opinion of a medical officer should be obtained on the important questions of heating and ventilation, drainage, sewerage, and plumbing fixtures. These are points where the special knowledge of a medical officer would be of great value, and it is far better and more economical to build a post right than to have to make subsequent expensive alterations.

INSTRUCTION OF THE LINE OF THE ARMY IN SANITATION.

Ultimately, however, the responsibility for the sanitation of the Army rests upon the line, the Medical Department having no power to enforce their recommendations. Therefore the study of military hygiene should be enforced at the Military Academy at West Point, and I have recommended that it be made a part of the regular course at that school, counting for class standing and graduation.

SANITATION IN THE FIELD.

Typhoid fever and diarrheal diseases, the two classes of maladies which most seriously threaten the efficiency of troops in the field, the former more especially in temperate climates, the latter in the Tropics, must be combated by the means that modern science has placed at our disposal for the purpose.

Though it is probably impossible to entirely prevent these diseases in the field, yet it is possible to control them, and not only possible but absolutely necessary to do so.

The exhaustive investigations of the typhoid fever board of 1898 have shown that the disease is so widespread in the United States that no large body of troops, even of the size of a regiment, in the case of volunteers, could be brought together without introducing typhoid fever; also, that before a case comes under observation it may have existed some time, meanwhile scattering abroad the seeds of infection, hence the futility of attempting to disinfect the feces of patients only. Our aim should always be to disinfect all urine and feces from the sick as well as from the apparently well, and also to disinfect promptly all infected clothing, bedding, tentage, etc. These measures together with arrangements for furnishing all soldiers with sterilized water would secure a large degree of protection; to carry them out special apparatus must be provided in time of peace.

With troops on the march the objectionable pit system for disposal of excreta and wastes is the only one practicable at present, but for camps of more than a few days' duration, all excreta must be disinfected at once and before disposal, and for this purpose, when water-carriage is not available, nothing better is known at present than the limewater trough system with odorless excavator adopted for the use of the Army in General Orders, No. 170, Adjutant-General's Office, 1899.

For the disposal of kitchen and other refuse some form of transportable destructor or cremator must be used.

Even on the march pure water can be supplied. Sterilizing apparatus on wheels capable of purifying sufficient water for a regiment can be drawn by two animals. All armies of importance have special water carts, and the most progressive are supplying themselves with the sterilizing apparatus.

It is recommended that one or more transportable garbage destructors, water carriers, water sterilizers, and disinfecting plants be purchased for trial under service conditions, and that a board be thereafter appointed to consider the whole matter.

TOILET PAPER.

The issue of toilet paper is now authorized where posts have sewer connection. Its issue to posts having earth-closets or pits is still more important for sanitary reasons; the soft toilet paper allows stools to be kept covered by earth, while other stiffer sorts render this impossible, so that flies can gain access to typhoid or other stools.

PHYSICAL TRAINING.

During the last year considerable more attention has been paid to athletics, post and department competitions being generally held, but systematic physical training in the sense used in foreign armies is still lacking. For years every effort has been made to develop the soldier's weapon, while very little has been done to develop the physical efficiency of the soldier himself. In all important foreign armies systematic physical training is considered one of the most essential features of the soldier's training, and is under skilled medical supervision. The course of instruction should be prescribed in orders and the necessary building and apparatus provided for by regular appropriation. Schools for the training of instructors, commissioned and noncommissioned, should be established in connection with the service schools at Forts Riley and Leavenworth, Kans.; and Fort Monroe, Va., and a detail made each year from regiments and other organizations for the purpose of providing a regular supply of qualified instructors.

POST LAUNDRIES.

Recommendations have been made from a number of posts looking to the establishment of steam laundries with a view to placing work of this character under military control. Such a step is recommended as a sanitary measure of much importance to prevent the introduction of infectious diseases, to secure cleanliness of the soldiers' clothing, and economy in cost to the soldier. At present the soldier has his washing done wherever he pleases, usually at the cheapest place, which is very commonly one of the shacks just outside of the post, where contagious diseases frequently exist unknown to the authorities. The laundry work is of the crudest character and often delayed, so that a soldier who is admonished about dirty underwear is able to make the excuse that his laundress has failed him.

Post laundries might be operated either by the Quartermaster's Department or as a feature of the post exchange; if by the post exchange it is believed that at the present average cost of laundry work to the soldier, $1 per month, a dividend would result to the exchange.

ANEMIA COMMISSION AND LABORATORIES FOR ORIGINAL RESEARCH.

The commission for the study and treatment of anemia in Porto Rico, Capt. Bailey K. Ashford, assistant surgeon, U. S. Army, president, whose valuable work was referred to in my last report, completed its work in August and submitted its report in December. The commission finds that the anemia of Porto Rico is due to a special disease, uncinariasis, which affects about 90 per cent of the rural inhabitants of the island, and that it can be restricted or eliminated by prevention of soil pollution by use of latrines and by treatment of existing cases.

In March, 1905, the governor of Porto Rico made a request for the services of Captain Ashford as chairman of the commission to be appointed to study and treat cases of uncinariasis in the island of Porto Rico, and the detail was promptly made by direction of the Secretary of War.

The work of the commission suggests the importance of undertaking similar investigations for the protection of our troops from the special diseases of the Tropics, concerning which there is so much yet to be learned.

The practical value from an economic point of view of efforts to prevent diseases, though well known, are hardly realized outside of the profession of medicine; there is too much disposition to consider only the first cost, and to regard results largely as ideal and not as providing ample justification for the expenditures.

That tropical diseases should be thoroughly studied with a view to preventing and finally extinguishing them it is necessary that thoroughly competent medical officers should give their whole time to the matter and work out the problem on the spot. To this end laboratories for original research should be established in the Philippines, with liberal provision for field parties to go into the districts particularly infected and study there the conditions which favor the existence of the diseases and which must be remedied to secure their suppression.

Work of this character has been done by the British Government in connection with her tropical colonies, and results have been obtained of the greatest importance in the prevention and control of tropical diseases.

MEDICAL OBSERVERS WITH RUSSIAN AND JAPANESE ARMIES.

February 10, 1904, request was made for the detail of two medical officers of the Army to accompany the Russian and Japanese armies to the seat of war as observers. This request was disapproved at the time, but in October, 1904, Col. Valery Havard, assistant surgeon-general, was detailed for duty with the Russian army, and Capt. Charles Lynch, assistant surgeon, General Staff, for duty with the Japanese army. Both of these officers promptly proceeded to their posts. Later, Colonel Havard was replaced by Col. John Van R. Hoff, assistant surgeon-general.

The following interesting statement of the causes of the discharges for disability in the Army during the year is discussed at length on page 15 of this report:

Discharges for disability, American troops.

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharges for disability within 3 months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES.							
General diseases	464	37.66	197	61	206	1	42
Venereal diseases	222	18.02	3	28	191	....	23
Syphilis (secondary 139, tertiary 26, primary 1)	166	13.47	....	22	144	....	19
Gonorrhea (gonorrheal rheumatism 32, chronic gonorrhea 11, gonorrheal ophthalmia 8, gonorrheal orchitis 2)	53	4.30	3	6	44	....	4
Chancroid	3	.24	....	....	3	....	....
Tuberculosis (of the lungs 101, of other organs 5, Potts's disease 2)	108	8.77	96	10	2	....	7
Articular rheumatism (chronic 43, acute 4)	47	3.81	37	10	....	....	3
Dysentery, chronic	43	3.49	43	....	....	....	....
Debility following operations or disease	9	.73	3	6	....	1	4
Drug habit (morphin habit 8, cocain habit 1)	9	.73	....	2	7	....	1
Alcoholism, chronic	7	.57	....	1	6	....	1
Diabetes	6	.49	5	1	....	....	1
Cancer	4	.32	4	....	....	....	....
Typhoid fever	2	.16	2	....	....	....	....
Measles	2	.16	2	....	....	....	....
Purulent infection	2	.16	2	....	....	....	....
Anemia	2	.16	....	2	....	....	1
Exophthalmic goitre	1	.08	....	1	....	....	1
Diseases of the nervous system	218	17.69	105	99	14	....	40
Insanity	88	7.14	55	22	11	....	8
Epilepsy	54	4.38	6	48	....	....	21
Other diseases of the nervous system (mental deficiency 8, hysteria and nervousness 4, failing mental power due to exposure 2, angioneurotic edema 1, impediment of speech 1, paresthesia 1, obscure affection of central nervous system 1)	18	1.46	5	13	....	....	2

Discharges for disability, American troops—Continued.

	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharges for disability within 3 months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Diseases of the nervous system—Cont'd.							
Neurasthenia	12	0.97	6	4	2	....	1
Neuritis	11	.89	6	4	1	....	2
Other diseases of the spinal cord (muscular atrophy 7, poliomyelitis 3)	10	.81	8	2	....	....	2
Paralysis	7	.57	6	1	....	....	1
Neuralgia	7	.57	3	4	....	....	3
Cerebral hemorrhage	5	.41	5		....	....	
Locomotor ataxia	3	.24	3	....	....	....	....
Meningitis	2	.16	2	....	....	....	....
Chorea	1	.08	....	1	....	....	....
Diseases of the organs of special sense	139	11.28	57	80	2	....	46
Diseases of the middle and internal ear (otitis media 49, deafness 10, diseases of the tympanum 3), disease of internal ear (labyrinthine involvement 1)	63	5.11	34	29	....	....	17
Errors of refraction	29	2.35	1	28	....	....	18
Amaurosis	12	.97	....	12	....	....	7
Other diseases of the eye (optic neuritis 3, atrophy of the optic nerve 3, vitreous opacity 1, nystagmus 1, ametropia 1, pemphigus blebs on conjunctiva 1)	10	.81	5	3	2	....	2
Diseases of the globe (retinitis 7, keratitis 1, iritis 1, sclerotitis 1)	10	.81	5	5	....	....	1
Chronic conjunctivitis (trachoma 4, chronic follicular conjunctivitis 1)	5	.41	5				
Cataract	3	.24	2	1	....	....	....
Diseases of choroid	3	.24	3	....	....	....	....
Diseases of lachrymal apparatus	2	.16	1	1	....	....	....
Ptosis of lid	1	.08	....	1	....	....	1
Glaucoma	1	.08	1	....	....	....	....
Diseases of the circulatory system	128	10.39	34	92	2	....	52
Organic disease of the heart	82	6.66	21	61	....	....	31
Diseases of the veins (varicose 11, varicocele 8, thrombosis 3, phlebitis 1)	23	1.87	6	17	....	....	14
Cardiac irritability	20	1.62	6	12	2	....	6
Aneurism	1	.08	....	1	....	....	....
Filariasis	1	.08	1	....	....	....	....
Syncope (recurrent attacks of)	1	.08	....	1	....	....	1
Diseases of the digestive system	86	6.98	35	50	1	....	32
Hernia (inguinal 52, ventral 2)	54	4.38	21	33	....	....	20
Diseases of the intestines (enteritis 5, constipation 2, ischio-rectal abscess 1, stricture of rectum 1, chronic diarrhea 1, fistula in ano 1)	11	.89	8	2	1	....	1
Diseases of teeth, gums, and alveoli	10	.81	1	9	....	....	8
Diseases of stomach (gastritis 5, dyspepsia 3)	8	.65	4	4	....	....	1
Appendicitis	2	.16	....	2	....	....	2
Hepatitis, chronic	1	.08	1	....	....	....	....
Diseases of the locomotor system	70	5.68	30	36	4	....	13
Diseases of the joints (bunions 10, flat feet 8, ankylosis 6, synovitis 6, hammertoes 4, arthritis 3, weakness of joint 2, floating cartilage 1)	40	3.25	16	21	3	....	9
Diseases of the bones (necrosis 8, curvature of spine 7, periostitis 3, exostosis 3)	21	1.70	8	12	1	....	3
Muscular rheumatism	6	.49	4	2	....	....	....
Diseases of tendons and muscles	3	.24	2	1	....	....	1
Diseases of the genito-urinary system	48	3.90	20	27	1	....	7
Diseases of the bladder (incontinence of urine 14, cystitis 4, retention of urine 1)	19	1.54	4	14	1	....	3
Bright's disease	18	1.46	16	2	....	....	1
Diseases of the testicles (orchitis 2, undescended testicle 2, enlarged testicle 1, atrophied testicle 1, hydrocele 1)	7	.57	....	7	....	....	2

Discharges for disability, American troops—Continued.

	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharges for disability within 3 months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Diseases of the genito-urinary system—Continued.							
Diseases of the urethra	3	0.24	....	3	....	....	1
Floating kidney	1	.08	....	1	....	....	....
Congenital malformations and arrested development	38	3.08	....	38	....	....	12
Diseases of the respiratory system	32	2.60	20	12	....	....	5
Diseases of the lungs (asthma 13, pleurisy 6, chronic bronchitis 2, pulmonary emphysema 2)	23	1.87	16	7	....	....	4
Chronic nasal catarrh	4	.32	2	2	....	....	....
Diseases of the thyroid body	3	.24	1	2	....	....	....
Hypertrophy of turbinated bones	1	.08	....	1	....	....	1
Chronic laryngitis	1	.08	1	....	....	....	....
Diseases of the skin (abscess 2, corns 2, ulcer 1, bromidrosis 1, dermatitis, chronic, 1, ichthyosis 1)	8	.65	3	4	1	....	1
Old age and results	1	.08	1	....	....	....	....
Total	1,232	100.00	502	499	231	1	250
INJURIES.							
Secondary results of injuries	58	40.00	14	43	1	....	26
Fractures	30	20.69	26	1	3	....	1
Gunshot wounds	27	18.62	21	1	5	....	....
Sprains	8	5.52	6	2	....	....	2
Incised wounds	7	4.83	7	....	....	....	....
Crushing	6	4.14	2	....	4	....	....
Lacerated wounds	3	2.07	2	....	1	....	....
Dislocation	1	.69	1	....	....	....	....
Muscular strain	1	.69	1	....	....	....	....
Contusion	1	.69	1	....	....	....	....
Hernia of muscle from injury	1	.69	1	....	....	....	....
Frostbite	1	.69	....	....	1	....	....
Amblyopia from poisoning by wood alcohol	1	.69	....	....	1	....	....
Total	145	100.00	82	47	16	....	29
Grand total	1,377	....	584	546	247	1	279

The following tabulation, referred to on page 38 of this report, shows in detail the surgical operations reported by medical officers as having been performed by them on officers and enlisted men of the Army during the last calendar year:

Surgical operations.

Name of operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				Remarks.
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Local.	N on.	
	EYE.										
Enucleation	Iridocyclitis 2, gonorrheal ophthalmia 1, anterior staphyloma 2, destructive laceration 1.	6	6	....	....	....	2	4	....	....	Sympathetic irritation of the sound eye necessitated 1 of these operations.
Linear extraction 9, simple extraction 10, extraction and iridectomy 2, discission, 4.	Cataract	25	23	1	1	....	1	2	22	....	
Iridectomy	Leukoma 1, iritis 1, prolapse of iris 1.	3	1	2	....	....	1	....	2	....	
Excision	Anterior staphyloma	2	2	....	....	....	2	....	....	....	
Tenotomy 7, tenotomy and "tuck" in antagonist 6, "tuck" 1.	Strabismus	14	13	1	....	....	1	....	13	....	
Excision	Epithelioma of conjunctiva	3	1	....	2	....	....	....	3	....	The failures were recurrent cases.
Do.	Pterygium	50	50	....	....	....	....	....	50	....	
Extirpation of sac 1, incision and curettage 7.	Dacryocystitis	8	8	....	....	....	....	....	8	....	
Wecker's operation	Ptosis	1	1	....	....	....	....	....	1	....	
Adam's operation	Ectropion	1	1	....	....	....	....	....	1	....	
	EAR.										
Stacke's operation 3, trephining mastoid 15, paracentesis tympani 4.	Suppurative otitis media	22	21	....	....	1	13	5	4	....	Died of purulent meningitis.
	NOSE.										
Excision	Epithelioma	1	1	....	....	....	....	1	....	....	
Paraffin method	Saddle-nose deformity	1	1	....	....	....	....	....	1	....	
Excision with saws	Enchondrosis and exostosis of septum.	27	21	6	....	....	....	....	27	....	
Excision (electro-cautery, electric snare, cold snare, and chromic acid).	Hypertrophy of turbinates	78	69	9	....	....	....	....	78	....	
White's operation, excision inferior turbinate	Deviation of septum	13	12	1	....	....	....	....	13	....	
Asch's operation	Deflected septum	3	2	1	....	....	....	3	....	....	
Excision	Nasal spur	10	10	....	....	....	....	....	10	....	
Removal by snare	Polypus	8	8	....	....	....	....	....	8	....	

Surgical operations—Continued.

Name of operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				Remarks.
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Local.	None.	
	MOUTH PHARYNX AND ESOPHAGUS.										
Amputation anterior half of tongue.	Epithelioma	1	1					1			
Excison and resection of alveola.	Epulis	1	1					1			
Tonsillotomy	Hypertrophy of tonsils	54	54				3	5	40	6	
Excision (curette, ring knife, and forceps).	Adenoids pharyngeal vault	45	42	3				15	30		
	NECK AND THORAX.										
Excision	Papilloma on vocal cord	1	1						1		
Rib resection, thoracotomy, aspiration.	Empyema	10	8			2	6	2	1	1	
Rib resection, aspiration	Pleurisy	12	11	1			1	1	7	3	
	ABDOMEN AND CONTENTS.										
Rib resection 11, thoracotomy 1, trocar and cannula (Manson) 1, laparotomy 9.	Abscess of liver	22	16			6	17	4	1		
Laparotomy	Hydatid cyst of liver	1	1					1			
Laparotomy, exploratory	Sarcoma of liver	1	*1				1				* Diagnosis made; died of antecedent hemorrhage.
Laparotomy, median incision	Laceration of liver	1				1		1			
Cholecystotomy	Cholelithiasis 2, cholecystitis 1	3	3				1	2			
Gastro-enterostomy	Carcinoma of stomach	1				1		1			
Laparotomy, exploratory	Carcinoma of pylorus	1				1	1				
Do	Carcinoma of duodenum	1				1		1			
Laparotomy, exploratory, and construction of artificial anus.	Adeno-carcinoma of cecum	1		1				1			
Laparotomy, bowel suture	Fecal fistula	1	1				1				
Laparotomy, bowel resection and anastomosis.	Intestinal ulceration	1	1				1				
Laparotomy, adhesions loosened.	Intestinal adhesions	3	3				1	2			
Laparotomy	Intestinal obstruction	2				2	1	1			
Laparotomy, exploratory	Tubercular peritonitis	1				1		1			
Laparotomy	Acute suppurative peritonitis following rupture of empyemic abscess.	1				1		1			

Laparotomy	Abscess, intra-abdominal (hypogastric region) 1, abscess at site of appendix removed by former operation 1.	2	2	....	....	....	....	2	....	....	
Appendectomy 135, laparotomy and drainage 8.	Appendicitis	143	132	....	....	11	58	85	....	....	Cholecystotomy, at the same time, was successfully done on 2 of these.
Bassini's method 159, Bassini's method modified 15, operation not stated 5.	Inguinal hernia (single 172, double 7); (5 were recurrent).	179	177	....	1	1	57	122	....	....	Died of intestinal hemorrhage 8 days after operation.
Bassini's method	Femoral hernia	4	4	....	....	....	2	2	....	....	
Operation for radical cure	Ventral hernia (1 in appendicular scar).	5	5	....	....	....	1	4	....	....	
Do	Umbilical hernia	2	2	....	....	....	1	1	....	....	
	ANUS AND RECTUM.										
Van Buren's operation 2, rectopexia (plug) 1.	Prolapse of rectum	3	3	....	....	....	2	1	....	....	
Paquelin cautery 1; divulsion 2	Ulcer of rectum	3	3	....	....	....	2	1	....	....	
Divulsion	Stricture of rectum	1	1	....	....	....	....	1	....	....	
Incision and curettage	Ischio rectal fistula	2	2	....	....	....	....	2	....	....	
Incision and drainage	Ischio rectal abscess	33	33	....	....	....	8	10	5	10	
Do	Peri-rectal abscess	5	5	....	....	....	....	1	....	4	
Excision	Rectal polypus	2	2	....	....	....	....	2	....	....	
Curettage 1, excision and curettage 56.	Fistula in ano	57	54	....	1	2	33	20	4	....	1 died of carcinoma of liver, and 1 of peritonitis 1 month after operation.
Divulsion	Fissure of anus	7	7	....	....	....	5	2	....	....	
Modified Whitehead operation	Prolapse of anus	1	1	....	....	....	....	1	....	....	
Excision	Anal ulcer	1	1	....	....	....	1	....	....	....	
Clamp and cautery 94, clamp and ligation 4, excision 50, evacuation 5, ligation 71, Hawkins's method 1, Whitehead's method 5.	External hemorrhoids 89, internal hemorrhoids 77, mixed hemorrhoids 64.	230	230	....	....	....	86	97	44	3	
	GENITO-URINARY SYSTEM.										
Castration	Tuberculosis of testicle 4, chronic orchitis 1, undescended testicle 3, cystic and colloid degeneration 1, atrophy 5, sarcoma 1.	15	15	....	....	....	10	5	....	....	
Bevan's operation	Undescended testicle	1	1	....	....	....	1	....	....	....	
High excision 153, low excision 14, excision site not stated 57, Bennett's operation 3.	Varicocele (left 220, right 4, double 3).	227	227	....	....	....	88	126	13	....	Local anesthetic in 1 case, "infiltration of sterile water."
Excision of sac 13, inversion of sac 6, open method 1, Volkman's method 1, Von Bergman's method 8, tapping 1, tapping and injection of carbolic acid 20.	Hydrocele (single 47, double 3).	50	50	....	....	....	16	15	4	15	

Surgical operations—Continued.

Name of operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				Remarks.
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Local.	None.	
	GENITO-URINARY SYSTEM—con.										
Epididymotomy	Suppurative epididymitis	5	5				3	1	1		
Enucleation	Cyst of epididymis	2	2				1	1			
Do	Cyst of spermatic cord	1	1					1			
Perineal incision and curettage.	Vesiculitis, chronic	1	1				1				
Incision and drainage	Cowperitis	1	1					1			
Nephrectomy	Pyonephrosis	1	1				1				
Nephrotomy exploratory	Suspected renal calculus	1			1			1			
Lumbar incision	Perinephretic abscess	8	8				7	1			
Laparotomy, reparative	Rupture of bladder	1				1	1				Died of shock before completion of operation.
Cystotomy, supra pubic	Vesical calculus	2	2				2				
Bottini's method (removal of obstructive bar) 1, cystotomy (supra pubic) 1, vasectomy 1.	Hypertrophy of prostate (retention of urine 1 case).	3	3				1	1	1		
Perineal incision	Abscess of prostate	4	4				3	1			
Amputation	Epithelioma of penis 1, gangrene of penis 1.	2	2				1	1			
Cystotomy supra pubic 1, perineal section, urethrorrhaphy urethrotomy (external) 1,	Rupture of urethra	3	3				2	1			
Urethrotomy 6, urethrotomy (internal) 8, urethrotomy (internal and external) 1, meatotomy 11, divulsion 3, dilatation (sounds) 16.	Stricture of urethra	45	42	3			5	1	35	4	
Urethrotomy, external	Fistula of urethra	3	3				3				
Do	Stone in urethra	1	1				1				
Do	Chancroid in meatus	1	1				1				
Incision	Periurethral abscess	7	7				2	1	2	2	
Circumcision	Phimosis 243, paraphimosis 5, redundant prepuce 71, balano-posthitis 10, balano-posthitis gonorrheal 8, chancroids 26, venereal warts 5, herpes preputialis 3.	371	371				42	41	288		
	VASCULAR SYSTEM.										
Trephining	Rupture middle meningeal artery.	1	1					1			

Ligation	Injury to left common carotid 1, facial 1, deep palmar arch 1, posterior tibial 1.	4	4	....	....	....	2	1	....	1	
Ligation, proximal and distal	Aneurism of radial artery	1	1	....	....	....	1	....	....	....	
Ligation and excision 35, ligation subcutaneous 1.	Varicose veins, leg and thigh	36	36	....	....	....	13	16	7	....	
Excision 1½ inches of long saphenous.	Phlebitis	1	1	....	....	....	....	....	1	....	
Incision and drainage	Pyophlebitis, external saphenous.	1	1	....	....	....	....	....	1	....	
	NERVOUS SYSTEM.										
Excision 1¼ inches of injured median nerve, ends approximated and sutured.	Paresis of thumb, index, and middle fingers.	1	1	....	....	....	....	....	1	....	
Nerve stretching, dry method	Sciatica	1	....	....	1	....	1	....	....	....	
	SKIN AND CELLULAR TISSUES.										
Didot's method	Syndactylism both hands	1	1	....	....	....	1	....	....	....	
Mayo's method 1, excision 5	Operation scar 2, painful scar 2, keloid 2.	6	5	....	1	....	5	....	1	....	The failure was an operation scar for ventral hernia.
Excision	Nevus of neck	1	1	....	....	....	....	....	1	....	
Curettage	Chronic ulcer	4	3	1	....	....	....	....	4	....	
Excision	Granulomata of buttock	1	1	....	....	....	....	....	1	....	
Incision and drainage	Abscess	179	175	....	....	4	35	19	71	51	The 4 deaths were from pyæmia, the abscesses being pyemic.
Incision and curettage	Carbuncle	14	14	....	....	....	3	....	5	6	
	LYMPHATIC GLANDS.										
Extirpation	Cervical adenitis, 8, femoral adenitis, 2.	10	10	....	....	....	4	2	4	....	
Do	Cervical adenitis, tubercular, 8, axillary adenitis, tubercular, 2.	10	9	1	....	....	1	6	....	....	
Incision and curettage 377, extirpation 185.	Inguinal adenitis (syphilitic 2, chancroidal 294, gonorrheal 114, nonvenereal 146, traumatic 6).	562	561	....	1	....	135	141	198	88	1 case spinal anesthesia tropococain.
	MUSCLES, TENDONS, FASCLÆ, LIGAMENTS, AND BURSÆ.										
Suture of fascia lata	Hernia of adductor longus	2	....	1	1	....	....	2	....	....	
Suture of tendon	Severed tendons	3	1	....	2	....	....	2	....	1	1 failure was caused by an infected wound.
Resection of tendon	Synovitis of tendon	1	1	....	....	....	....	1	....	....	
Excision of redundant tissue	Synovitis of tendon sheath	1	1	....	....	....	1	....	....	....	
Tenotomy	Contraction of flexor tendons ring and little fingers.	1	1	....	....	....	....	....	1	....	

Surgical operations—Continued.

Name of operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				Remarks.
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Local.	None.	
	MUSCLES, TENDONS, FASCIÆ, LIGAMENTS, AND BURSÆ—con.										
Excision 2, incision 1, resection head of metatarsal bone 2.	Bunion	5	4	1				4	1		
Excision	Bursal cyst	2	2				1	1			
Incision	Bursitis	2	2				1			1	
	BONES.										
Trephining, removal of fragments.	Fracture of skull	5	2			3	3	2			
Wiring	Fracture inferior maxilla	8	7		1		8				
Laminectomy	Fracture third and fourth cervical vertebræ.	1				1	1				Died seventh day of injury.
Wiring of fragments	Fracture clavicle, multiple	1	1				1				
Do	Fracture ribs (9 lower)	1		1			1				
Do	Fracture patella	2	2				1	1			
Resection, 1; wiring through original wound, 1.	Fracture, compound, both bones leg.	2	2				2				
Tenotomy, tendo achilles	Fracture, compound, complex, both bones leg.	1			1		1				
Osteotomy, refracture	Genu varum from old fracture.	1	1					1			
Edges freshened and fragments wired.	Ununited fracture lower jaw	1		1			1				
Resection	Ununited fracture forearm	2	2				2				
Fracture exposed and wired	Ununited fracture tibia	2	2					2			
Sequestrotomy	Necrosis of skull	1	1					1			
Resection, 4; curettage, 2	Necrosis inferior maxilla	6	6				5	1			
Incision and curettage	Necrosis, olecranon, 1; necrosis radius, 1; necrosis, metacarpus, 2.	4	3	1			2	2			
Do	Caries of rib	2	2				1	1			
Do	Necrosis of sacrum	1	1					1			
Do	Necrosis acetabulum	1	1					1			
Exploratory incision over head of femur, multiple openings made in bone.	Osteomyelitis head of femur	1		1			1				
Resection head and neck of femur 1, curettage 2.	Necrosis of femur	3	3				1	2			

Incision and curettage	Osteomyelitis of tibia	2	2				2				
Do.	Osteoperiostitis of tibia	2	2					2			
Do.	Necrosis of tibia	3	3				2	1			
Excision	Exostosis, metatarsal	1	1				1				
	JOINTS.										
Resection, Langenbeck's operation.	Tubercular arthritis elbow joint	1	1				1				
Incision and curettage	Suppurative arthritis hip joint.	1	1				1				
Suture of capsule	Laceration of capsule knee joint	1	1					1			
Incision, loose cartilage removed	Floating cartilage knee joint	1	1						1		
Aspiration	Synovitis knee joint	2	2						2		
Resection of joint	Hallux valgus	7	5	2			2	5			
Tenotomy 2, resection 2	Hammer-toe	4	3	1			1	1	2		
Tenotomy	Contraction little finger	1			1				1		
Incision and reduction	Old dislocation elbow	1	1				1				
	AMPUTATIONS.										
Amputation of arm	Injury	3	3				2	1			
Amputation of forearm	....do	1	1				1				
Amputation of hand through metacarpus.	....do	1	1					1			
Amputation of thumb, 4; of fingers, 56	Disease, 12; injury, 48	60	60				26	16	15	3	
Amputation of thigh (middle third, 3; lower third, 4; site not stated, 3).	Gangrene, 2; senile gangrene, 1; osteomyelitis, 1; fibrochondro-sarcoma, 1; sloughing flaps, 1; injury, 4.	10	8			2	7	3			1 died of gangrene, 1 of senile gangrene.
Amputation of leg (upper third, 3; middle third, 2; lower third, 3; site not stated, 4).	Osteomyelitis 1, gangrene 1, caries of tarsal bones 1, sloughing flaps 1, freezing 1, injury 7.	12	10	1		1	8	4			The case "caries of tarsal bones" died of ether anesthesia.
Amputation of foot (modified Chopart's).	Freezing	1	1				1				
Amputation of toes	Disease, 9 (2 sarcoma); deformity, 9; injury, 6.	24	24				11	10	3		
	MALIGNANT TUMORS.										
Extirpation	Epithelioma, 5; sarcoma, 3; fibrochondro sarcoma, 1.	9	5	2	1	1	5	3	1		Died of shock following operation for secondary cancer of neck.
	BENIGN TUMORS.										
Excision	Enchondroma 1, adeno fibroma 1, fibroma 6, hematoma 3, lipoma 16, myoma 1, teratoma 2, cystic wen 1, cystic tumor 2, mammary cyst 1, serous cyst 2, sebaceous cyst 52, tumor undetermined 1.	89	88		1		21	8	53	7	The facial artery was tied in a case of fibroma involving the submaxillary gland. The failure was a tumor of undetermined nature of the index finger.

Surgical operations—Continued.

Name of operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				Remarks.
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Local.	None.	
	PLASTIC SURGERY.										
Skin grafting	Indolent ulcer 2, varicose ulcer 1.	3	3	....	....	....	2	1	....	....	
	MISCELLANEOUS.										
Trephining of skull and aspiration through lumbosacral foramen.	Cerebrospinal meningitis	1	1	....	....	....	....	1	....	....	
	Total	3,015	2,911	13	17	11	835	878	1,096	206	

Chart showing the relative mortality of venereal diseases, malarial fevers, fevers undetermined, tuberculosis, and typhoid fevers in the United States (continental), Philippine Islands, and Alaska.

Deaths.

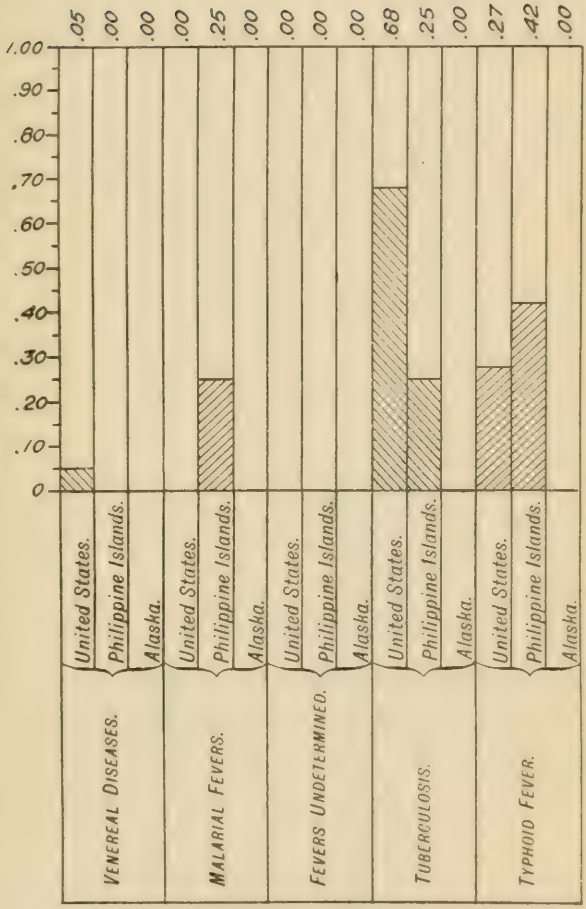
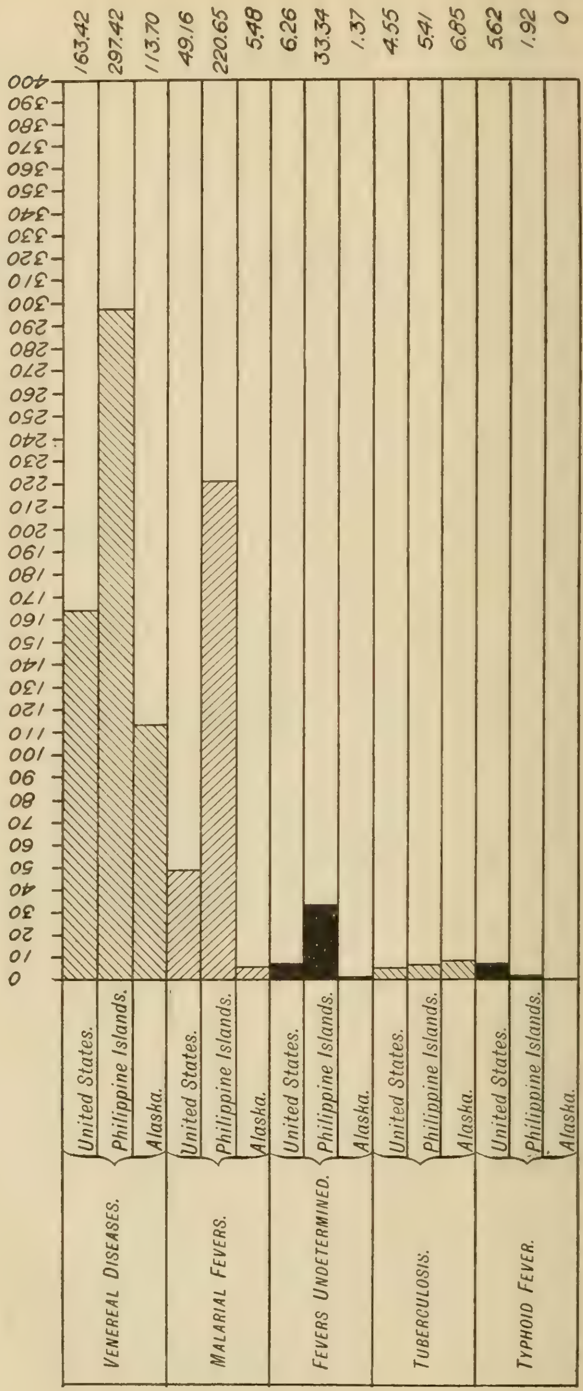


Chart showing the relative prevalence of venereal diseases, malarial fevers, fevers undetermined, tuberculosis, and typhoid fever in the United States (continental), Philippine Islands and Alaska.



STATISTICAL TABLES.

The following tables show in detail the statistical data upon which the statements in this report are based:

I. Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1904, compared with corresponding data for the year 1903, by countries: Absolute numbers.

II. Same as Table I: Proportionate numbers.

III. Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1904, compared with corresponding data for the year 1903, by races: Absolute numbers.

IV. Same as Table III: Proportionate numbers.

V. Admissions to sick report, discharges, deaths, and noneffectiveness in the Army, with ratios per 1,000 of mean strength, in which all available data for the quinquennial period 1898–1902 are placed in comparison with the year 1904.

V (a). Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, officers and enlisted men, white, for the year 1904.

VI. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, United States, continental (excluding Alaska).

VI (a). Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, white troops, United States, continental (excluding Alaska).

VI (b). Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, colored troops, United States, continental (excluding Alaska).

VII. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, Alaska, Porto Rico, and Cuba.

VII (a). Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, Philippine Islands and Hawaii.

VII (b). Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, China and army transports.

VIII. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904 Porto Rican and Filipino troops.

TABLE I.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1904, compared with corresponding data for the year 1903, by countries—Absolute numbers.*

American troops (enlisted).		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
United States	1904..	43,940	57,378	46,071	11,307	1,364	1,220	144	283	173	110	744,819	2,035.02
	1903..	39,283	49,103	38,986	10,117	1,478	1,364	114	236	163	73	....	....
Alaska	1904..	730	612	454	158	10	9	1	5	4	1	7,546	20.62
	1903..	599	506	385	121	20	18	2	4	1	3	....	....
Porto Rico and Cuba	1904..	124	110	86	24	1	1	....	1	1	....	1,700	4.64
	1903..	923	1,491	1,171	320	16	16	....	3	2	1	....	....
Philippine Islands	1904..	11,996	20,246	17,672	2,574	2	2	....	105	46	59	289,217	790.21
	1903..	17,523	36,870	33,197	3,673	2	2	....	260	203	57	....	....
Hawaii	1904..	204	294	230	64	....	....	....	2	2	....	3,275	8.95
	1903..	204	326	269	57	2	....	2	1	1	....	....	....
China	1904..	142	198	175	23	....	....	....	1	....	1	1,935	5.29
	1903..	142	151	128	23	....	....	....	3	3	....	....	....
Army transports	1904..	1,604	748	716	32	....	....	....	9	7	2	22,172	60.58
	1903..	....	....	....	....	....	....	....	....	....	....	....	....
Total	1904..	58,740	79,586	65,404	14,182	1,377	1,232	145	406	233	173	1,070,664	2,925.31
	1903..	58,674	88,447	74,136	14,311	1,518	1,400	118	507	373	134	....	....
Regular Army, American troops	1898 to 1902	67,575	670,880	600,204	70,676	7,726	6,122	1,562	5,876	4,312	1,564	....	....

NOTE.—Days for the year 1903 and for the five-year period not suitably consolidated for use in this table.

TABLE II.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1904 compared with corresponding data for the year 1903, by countries—Proportionate numbers.*

American troops (enlisted).		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Constantly non-effective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
United States	1904	43,940	1,305.83	1,048.50	257.33	31.04	27.77	3.28	6.44	3.91	2.50	46.32	17.00	13.00
	1903	39,283	1,249.98	992.44	257.54	37.62	34.72	2.90	6.01	4.15	1.86	....	....	....
Alaska	1904	730	838.36	621.92	216.44	13.70	12.33	1.37	6.85	5.48	1.37	28.24	10.31	12.33
	1903	599	844.74	642.74	202.00	33.39	30.05	3.34	6.68	1.67	5.01	....	....	....
Porto Rico and Cuba	1904	124	887.10	693.55	193.55	8.06	8.06	....	8.06	8.06	....	37.46	13.71	15.45
	1903	923	1,615.38	1,268.69	346.69	17.33	17.33	....	3.25	2.17	1.08	....	....	....
Philippine Islands	1904	11,996	1,687.73	1,473.16	214.57	.17	.17	....	8.75	3.83	4.92	65.88	24.19	14.33
	1903	17,523	2,104.09	1,894.48	209.61	.11	.11	....	14.84	11.59	3.25	....	....	....
Hawaii	1904	204	1,441.17	1,127.45	313.72	....	....	....	9.80	9.80	....	43.86	16.05	11.14
	1903	204	1,598.04	1,318.63	279.41	9.80	....	9.80	4.90	4.90	....	....	....	....
China	1904	142	1,394.36	1,232.39	161.97	....	....	....	7.04	....	7.04	37.23	13.63	9.77
	1903	142	1,063.38	901.41	161.97	....	....	....	21.13	21.13	....	....	....	....
Army transports	1904	1,604	466.33	446.38	19.95	....	....	....	5.61	4.36	1.25	37.77	13.82	29.64
	1903	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	1904	58,740	1,354.89	1,113.45	241.44	22.90	20.49	2.41	6.75	3.87	2.88	49.80	18.23	13.45
	1903	58,674	1,507.43	1,263.52	243.91	25.87	23.86	2.01	8.64	6.36	2.28	....	....	....
Regular Army, American troops, 1898 to 1902		67,575	1,985.60	1,776.42	209.18	22.87	18.12	4.62	17.39	12.76	4.63	....	....	....

NOTE.—Days for the year 1903 and the five-year period not suitably consolidated for use in this table.

TABLE III.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1904 compared with corresponding data for the year 1903, by races—Absolute numbers.*

Enlisted men.		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly non-effective.
White troops	1904..	55,619	75,915	62,700	13,215	1,319	1,176	143	381	212	169	1,029,983	2,814.16
	1903..	55,518	85,182	71,684	13,498	1,478	1,365	113	471	343	128	....	....
Colored troops	1904..	3,121	3,671	2,704	967	58	56	2	25	21	4	40,681	111.15
	1903..	3,183	3,265	2,452	813	40	35	5	36	30	6	....	....
Porto Rican troops	1904..	540	767	677	90	7	4	3	2	2	....	12,222	33.39
	1903..	578	858	737	121	15	14	1	....	....	....	....	....
Filipino troops	1904..	4,610	5,242	4,717	525	27	26	1	103	35	68	54,074	147.74
	1903..	4,789	6,572	6,154	418	49	48	1	103	87	16	....	....

NOTE.—Days for the year 1903 not suitably consolidated for use in this table.

TABLE IV.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1904 compared with corresponding data for the year 1903, by races—Proportionate numbers.*

Enlisted men.		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Constantly non-effective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
White troops	1904..	55,619	1,364.92	1,127.32	237.60	23.17	20.66	2.51	6.69	3.72	2.97	50.60	18.52	13.57
	1903..	55,518	1,534.31	1,291.19	243.12	26.63	24.59	2.04	8.48	6.18	2.30	....	....	....
Colored troops	1904..	3,121	1,176.22	866.39	309.83	18.07	17.45	.62	7.79	6.54	1.25	35.62	13.03	11.08
	1903..	3,183	1,025.76	770.34	255.42	12.57	11.00	1.57	11.31	9.42	1.89	....	....	....
Porto Rican troops	1904..	540	1,420.37	1,253,70	166.67	12.96	7.41	5.55	3.70	3.70	....	61.84	22.63	15.93
	1903..	578	1,484.43	1,275.08	209.34	25.95	24.22	1.73	....	....	....	....	....	....
Filipino troops	1904..	4,610	1,137.09	1,023.21	113.88	5.86	5.64	.22	22.34	7.59	14.75	32.05	11.73	10.32
	1903..	4,789	1,372.32	1,285.03	87.29	10.23	10.02	.21	21.51	18.17	3.34	....	....	....

NOTE.—Days for the year 1903 not suitably consolidated for use in this table.

TABLE V.—*Admissions to sick report, discharges, deaths, and noneffectiveness in the Army, with ratios per 1,000 of mean strength, in which all available data for the quinquennial period 1898-1902 are placed in comparison with the year 1904.*

	United States Army, years 1898-1902.								American troops—Army.							
Mean strength	67,575 337,873 (aggregate)								S. G. O. 58,740—M. S. O. 60,139.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	7,255	21.47	39	0.12	834	2.47			280	4.77	2	0.03	20	0.33	46.43	0.79
Fevers, undetermined	6,815	20.17							706	12.02					10.69	.18
Malarial fevers:																
Intermittent	119,185	353.64	4	.01	9	.03			3,953	67.30					73.91	1.26
Remittent or continued	31,487	93.19	5	.01	98	.29			890	15.15			1	.02	27.34	.47
Pernicious	566	1.68	1	.003	201	.59			5	.09			2	.03	.20	.003
Malarial cachexia	6,246	18.49	161	.48	42	.12			107	1.82					8.15	.14
Smallpox	448	1.33			101	.30			20	.34			3	.05	1.73	.03
Measles	4,827	14.29	8	.02	81	.24			847	14.42	2	.03	14	.23	48.56	.83
Eruptive fevers, others	447	1.32			6	.02			138	2.35			1	.02	5.53	.09
Diphtheria	125	.37			9	.03			11	.19					.60	.01
Influenza	8,880	26.28			4	.01			2,485	42.31					31.96	.60
Asiatic cholera	405	1.20			238	.70			1	.02					.03	.001
Cholera nostras	883	2.61							12	.20					.13	.002
Dysentery	21,703	64.24	322	.95	858	2.54			1,321	22.49	43	.72	15	.25	135.29	2.30
Bubonic plague																
Yellow fever	1,019	3.02			156	.46			1	.02					.05	.001
Leprosy															1.00	.02
Beriberi	28	.08	2	.006	3	.01			1	.02					1.01	.02
Erysipelas	303	.90			6	.02			48	.82			3	.05	2.58	.04
Dengue	10,100	29.89			1	.003			934	15.90					17.20	.29
Mumps	3,990	11.81							601	10.23					23.08	.39
Cerebro-spinal meningitis, epidemic	164	.48	17	.05	85	.25			12	.20			7	.12	1.63	.03
Malta fever									5	.09					1.07	.02
Purulent infection and septicemia	73	.22	2	.006	41	.12			11	.19	2	.03	5	.08	1.61	.03
Trichiniasis																
Tuberculosis, pulmonary	1,512	4.48	695	2.06	248	.73			250	4.26	101	1.68	30	.50	127.12	2.16
Tuberculosis of other organs									27	.46	7	.12	4	.07	7.29	.12
Syphilis and its results	6,151	18.20	654	1.94	12	.04			1,996	33.98	166	2.76	2	.03	192.34	3.27
Chancroid and its results	12,096	35.80	21	.06					1,961	33.39	3	.05			121.96	2.08
Gonorrhea and its results	31,445	93.07	225	.67	3	.01			7,106	120.97	53	.88			400.57	6.82
Cancer and other malignant growths	63	.19	14	.04	12	.04			16	.27	4	.07	7	.12	4.17	.07
Rheumatism, acute, articular	1,923	5.69	21	.06	7	.02			755	12.85	4	.07			37.54	.64
Rheumatism, subacute and chronic, articular	2,465	7.30	207	.61					409	6.96	43	.72	1	.02	53.90	.92
Alcoholism and its results	6,955	20.58	33	.10	96	.28			1,622	27.61	7	.12	11	.18	20.59	.35
Insanity	636	1.88	492	1.46	4	.01			99	1.69	88	1.46	1	.02	15.75	.27

TABLE V.—*Admissions to sick report, discharges, deaths, and noneffectiveness in the Army, with ratios per 1,000 of mean strength, in which all available data for the quinquennial period 1898–1902 are placed in comparison with the year 1904*—Continued.

	United States Army, years 1898–1902.								American troops—Army.							
Mean strength	67,575–337,873 (aggregate)								S. G. O. 58,740—M. S. O. 60,139.							
	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Epilepsy									128	2.18	54	0.90			7.59	0.13
Tetanus	12	0.04			9	0.03										
Organic diseases of the heart	2,099	6.21	497	1.47	149	.44			268	4.56	82	1.36	15	.25	26.26	.45
Aneurism									5	.09	1	.02	4	.07	.43	.01
Lymphangitis	342	1.01	9	.03	1	.003			23	.39					.69	.01
Bronchitis, acute and chronic	22,066	65.31	29	.09	3	.01			3,277	55.79	2	.03			56.20	.96
Broncho-pneumonia	1,277	3.78	13	.04	188	.56			18	.31			4	.07	1.83	.03
Pneumonia (pneumonic fever)									250	4.26			39	.65	24.07	.41
Diarrhea and enteritis	92,469	273.68	97	.29	189	.56			5,032	85.67	6	.10	3	.05	92.25	1.57
Intestinal parasites									148	2.52					4.40	.07
Inguinal and other herniæ	1,802	5.33	369	1.09	2	.006			313	5.33	54	.90			38.20	.65
Hepatic abscess									26	.44			7	.12	5.85	.10
Appendicitis	959	2.84	40	.12	57	.17			228	3.88	2	.03	6	.10	22.02	.37
Dhobie itch									289	4.92					8.34	.14
Other parasitic diseases of the skin									1,192	20.29					33.90	.58
Acute nephritis									35	.60			1	.02	2.75	.05
Chronic nephritis									45	.77	18	.30	7	.12	7.67	.13
Malingering									77	1.31					2.02	.03
External causes, special.																
Fractures, exclusive of gunshot	2,726	8.07	179	.53	69	.20			571	9.72	30	.50	20	.33	72.97	1.24
Dislocations	986	2.92	35	.10	3	.01			250	4.26	1	.02	1	.02	12.75	.22
Sprains and muscular strains									4,629	78.80	9	.15			98.07	1.67
Wounds, gunshot	3,765	11.14	636	1.88	866	2.56			206	3.51	27	.45	44	.73	28.02	.48
Wounds, other than gunshot	13,362	39.55	55	.16	140	.41			2,850	48.52	10	.17	15	.25	73.60	1.25
Sunstroke	790	2.34	16	.05	22	.07			27	.46					.43	.01
Frostbite and general freezing									89	1.52	1	.02			2.76	.05
Drowning	8	.02			332	.98			1	.02			45	.75	.01	.0001
Poisoning, acute	1,102	3.26	3	.01	54	.16			138	2.35	1	.02	22	.37	1.86	.03
Venomous bites, etc	2,302	6.81	5	.01	1	.003			92	1.57					1.74	.03
Snake bite																
Other venomous bites, etc																

Diseases and injuries grouped.																
General diseases	295,159	873.58	2,645	7.83	3,121	9.24	....	....	28,764	489.68	464	7.71	119	1.98	1,459.93	24.86
Epidemic diseases	230,777	683.03	543	1.61	2,647	7.84	....	....	14,249	242.58	47	.78	59	.98	472.43	8.04
Other general diseases	64,382	190.55	2,102	6.22	474	1.40	....	....	14,515	247.10	417	6.93	60	1.00	987.50	16.81
Diseases of the nervous system and organs of special sense	20,530	60.77	1,093	5.01	177	.52	....	....	2,883	49.08	357	5.94	16	.27	158.05	2.69
Of the nervous system	10,976	32.49	1,067	3.16	173	.51	....	....	1,277	21.74	218	3.63	16	.27	85.40	1.45
Of the eye and its adnexa	5,090	15.07	306	.91	1	.003	....	....	1,048	17.84	76	1.26	....	....	43.52	.74
Of the ear and its adnexa	4,464	13.21	320	.95	3	.01	....	....	558	9.50	63	1.05	....	....	29.13	.50
Diseases of the circulatory system	6,988	20.68	663	1.96	171	.51	....	....	1,903	32.40	128	2.13	21	.35	105.32	1.79
Diseases of the respiratory system	34,063	100.82	181	.54	223	.66	....	....	5,523	94.03	32	.53	46	.76	135.05	2.30
Diseases of the digestive system	162,408	480.68	710	2.10	419	1.24	....	....	15,872	270.21	86	1.43	22	.37	334.44	5.69
Diseases of the genito-urinary system	5,284	15.64	174	.51	130	.38	....	....	1,196	20.36	48	.80	9	.15	54.85	.93
Diseases of the skin and cellular tissue	47,564	140.77	43	.13	5	.01	....	....	6,200	105.55	8	.13	....	....	165.08	2.81
Diseases of the organs of locomotion	20,150	59.64	415	1.23	2	.006	....	....	2,475	42.14	70	1.16	....	....	85.61	1.46
Malformations, etc	....	....	....	....	....	....	....	....	66	1.12	38	.63	....	....	2.84	.05
Diseases, results of old age	....	....	....	....	....	....	....	....	2	.03	1	.02	....	....	.15	.003
Ill defined diseases	8,905	26.36	3	.01	13	.04	....	....	520	8.85	....	....	....	....	14.30	.24
Total for disease	601,051	1,778.93	6,527	19.32	4,261	12.61	....	....	65,404	1,113.45	1,232	20.49	233	3.87	2,515.63	42.83
External causes	69,829	206.67	1,199	3.55	1,615	4.78	....	....	14,182	241.44	145	2.41	173	2.88	409.68	6.97
Total for disease and external causes	670,880	1,985.60	7,726	22.87	5,876	17.39	....	....	79,586	1,354.89	1,377	22.90	406	6.75	2,925.31	49.80
Subclassification (repeated above):																
Suicide	....	....	....	....	....	....	....	....	....	....	....	....	27	....	....	....
Homicide	....	....	....	....	....	....	....	....	....	....	....	....	10	....	....	....
Killed in action	....	....	....	....	....	....	....	....	....	....	....	....	21	....	....	....
Died of wounds in action	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....

TABLE V (a).—*Admissions to sick report, discharges, deaths, and noneffectiveness with ratios per 1,000 of mean strength, officers and enlisted men, white, for the year 1904.*

	American troops—White.								Officers.[a]							
Mean strength	S. G. O. 55,619—M. S. O. 56,930								S. G. O. 3,421—M. S. O. 3,815							
	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	278	5.00	2	0.04	20	0.35	46.12	0.83	8	2.34					1.45	0.42
Fevers, undetermined	691	12.42					10.37	.19	13	3.80					.30	.09
Malarial fevers:																
Intermittent	3,895	70.03					72.88	1.31	95	27.77					2.24	.66
Remittent or continued	883	15.88			1	.02	26.80	.48	54	15.78					2.78	.81
Pernicious	5	.09			2	.04	.20	.004								
Malarial cachexia	106	1.91					8.06	.14	17	4.97					1.73	.51
Smallpox	18	.32			3	.05	1.59	.03	1	.29					.08	.02
Measles	834	14.99	2	.04	14	.25	47.90	.86	6	1.75					.33	.10
Eruptive fevers, others	135	2.43			1	.02	5.44	.10	5	1.46					.19	.05
Diphtheria	11	.20					.60	.01	4	1.17					.31	.09
Influenza	2,423	43.56					33.95	.61	236	68.99					3.41	1.00
Asiatic cholera	1	.02					.03	.001								
Cholera nostras	12	.22					.13	.002	4	1.17					.07	.02
Dysentery	1,308	23.52	42	.74	15	.26	134.04	2.41	63	18.41					8.53	2.49
Bubonic plague																
Yellow fever	1	.02					.05	.001								
Leprosy							1.00	.02								
Beriberi	1	.02					1.01	.02								
Erysipelas	47	.84			3	.05	2.56	.05	1	.29					.02	.01
Dengue	934	16.79					17.20	.31	39	11.40					.80	.23
Mumps	588	10.57					22.60	.41	5	1.46					.15	.04
Cerebrospinal meningitis, epidemic	12	.22			7	.12	1.63	.03								
Malta fever	5	.09					1.07	.02	3	.88					.83	.24
Purulent infection and septicemia	7	.13	1	.02	4	.07	.93	.02								
Trichinosis																
Tuberculosis, pulmonary	233	4.19	98	1.72	27	.47	116.62	2.10	6	1.75					11.71	3.43
Tuberculosis of other organs	24	.43	6	.11	3	.05	6.13	.11	2	.58			1	0.26	.18	.05
Syphilis and its results	1,953	35.11	161	2.83	2	.04	189.65	3.41	12	3.51					1.25	.36
Chancroid and its results	1,867	33.57	3	.05			116.82	2.10	1	.29					.06	.02
Gonorrhea and its results	6,835	122.89	45	.79			389.47	7.00	13	3.80					1.21	.35
Cancer and other malignant growths	14	.25	4	.07	4	.07	3.32	.06							.47	.14
Rheumatism, acute, articular	714	12.84	4	.07			36.31	.65	13	3.80					.63	.18
Rheumatism, subacute and chronic, articular	388	6.98	41	.72	1	.02	50.94	.92	18	5.26					3.04	.89
Alcoholism and its results	1,584	28.48	7	.12	10	.18	20.16	.36	33	9.65			1	.26	1.09	.32
Insanity	94	1.69	84	1.48	1	.02	15.14	.27	4	1.17					.47	.14

Epilepsy	122	2.19	52	.91			7.19	.13								
Tetanus																
Organic diseases of the heart	257	4.62	78	1.37	13	.23	25.01	.45	5	1.46			3	.79	.17	.05
Aneurism	5	.09	1	.02	3	.05	.43	.01								
Lymphangitis	22	.40					.66	.01	2	.58					.06	.02
Bronchitis, acute and chronic	3,068	55.16	2	.04			53.73	.97	148	43.26					2.70	.79
Broncho pneumonia	17	.31			4	.07	1.76	.03	1	.29			1	.26	.23	.07
Pneumonia (pneumonic fever)	223	4.01			34	.58	22.24	.40	4	1.17					.34	.10
Diarrhea and enteritis	4,873	87.61	6	.11	3	.05	90.48	1.63	157	45.89					3.82	1.12
Intestinal parasites	144	2.59					4.33	.08	4	1.17					.51	.15
Inguinal and other herniæ	299	5.38	52	.91			36.62	.66	7	2.05					.55	.16
Hepatic abscess	24	.43			6	.11	5.71	.10								
Appendicitis	219	3.94	2	.04	5	.09	21.14	.38	30	8.77			1	.26	1.34	1.27
Dhobie itch	286	5.14					8.31	.15	7	2.05					.15	.04
Other parasitic diseases of the skin	1,170	21.04					33.34	.60	13	3.80					.38	.11
Acute nephritis	32	.58			1	.02	2.67	.05	3	.88					.38	.11
Chronic nephritis	40	.72	17	.30	7	.12	7.01	.13	5	1.46					.57	.17
Malingering	72	1.29					2.00	.04								
External causes, special.																
Fractures, exclusive of gunshot	538	9.67	30	.53	20	.35	68.93	1.24	20	5.85			1	.26	1.82	.53
Dislocations	237	4.26	1	.02	1	.02	12.28	.22	7	2.05					.77	.22
Sprains and muscular strains	4,282	76.99	9	.16			91.57	1.65	97	28.35					4.82	1.41
Wounds, gunshot	180	3.24	27	.47	42	.74	25.88	.47	9	2.63			9	2.36	3.00	.88
Wounds, other than gunshot	2,628	47.25	10	.18	15	.26	68.62	1.23	31	9.94			2	.52	1.36	.40
Sunstroke	26	.47					.40	.01								
Frostbite and general freezing	59	1.06	1	.02			2.06	.04	3	.88					.01	.004
Drowning					44	.77							1	.26		
Poisoning, acute	135	2.43	1	.02	21	.37	1.78	.03	8	2.34					.15	.04
Venomous bites, etc	90	1.62					1.72	.03	4	1.17					.04	.01
Snake bite																
Other venomous bites, etc																
Diseases and injuries grouped.																
General diseases	27,992	503.28	440	7.73	110	1.93	1,415.96	25.46	664	194.10			2	.52	43.47	12.72
Epidemic diseases	14,026	252.18	46	.81	59	1.04	465.94	8.38	554	161.95					23.22	6.79
Other general diseases	13,966	251.10	394	6.92	51	.90	950.02	17.08	110	32.15			2	.52	20.25	5.93
Diseases of the nervous system and organs of special sense	2,723	48.96	346	6.08	15	.26	153.27	2.76	202	59.05					14.65	4.29
Of the nervous system	1,194	21.47	209	3.67	15	.26	82.38	1.48	106	30.99					10.23	2.99
Of the eye and its adnexa	978	17.58	74	1.30			41.91	.75	76	22.21					2.28	.67
Of the ear and its adnexa	551	9.91	63	1.11			28.98	.52	20	5.85					2.14	.63
Diseases of the circulatory system	1,796	32.29	121	2.13	18	.32	101.28	1.82	55	16.08			4	1.05	2.54	.74
Diseases of the respiratory system	5,182	93.18	31	.54	40	.70	128.68	2.31	256	71.83			1	.26	5.96	1.75
Diseases of the digestive system	15,127	271.98	83	1.46	20	.35	323.37	5.81	609	178.02			2	.52	16.15	1.73

[a] American officers of Philippine Scouts and Porto Rican regiment included in above figures.

TABLE V (a).—*Admissions to sick report, discharges, deaths and noneffectiveness, with ratios per 1,000 of mean strength, officers and enlisted men, white, for the year 1904*—Continued.

	American troops—White.								Officers.							
Mean strength	S. G. O. 55,619—M. S. O. 56,930								S. G. O. 3,421—M. S. O. 3,815							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases and injuries grouped—Con.																
Diseases of the genito-urinary system	1,101	19.80	43	0.76	9	0.16	50.86	0.91	41	11.98	......	......	......	......	3.03	0.89
Diseases of the skin and cellular tissue	5,991	107.72	8	.14	......	......	159.23	2.86	88	25.72	......	......	......	......	2.25	.66
Diseases of the organs of locomotion	2,239	40.26	67	1.18	......	......	79.67	1.43	71	20.75	......	......	1	0.26	3.59	1.05
Malformations, etc	62	1.11	36	.63	......	......	2.60	.05	......	......	......	......	......	......	......	......
Diseases, results of old age	2	.04	1	.02	......	......	.15	.003	......	......	......	......	......	......	......	......
Ill-defined diseases	485	8.72	......	......	......	......	13.99	.25	12	3.51	......	......	......	......	1.26	.37
Total for disease	62,700	1,127.32	1,176	20.66	212	3.72	2,429.06	43.67	1,998	584.04	......	......	10	2.62	92.93	27.19
External causes	13,215	237.60	143	2.51	169	2.97	385.10	6.92	278	81.26	......	......	17	4.46	13.89	4.06
Total for disease and external causes	75,915	1,364.92	1,319	23.17	381	6.69	2,814.16	50.60	2,276	665.30	......	......	27	7.08	106.82	31.25
Subclassification (repeated above):																
Suicide	......	......	......	......	27	......	......	......	......	......	......	......	4	......	......	......
Homicide	......	......	......	......	8	......	......	......	......	......	......	......	......	......	......	......
Killed in action	......	......	......	......	21	......	......	......	......	......	......	......	4	......	......	......
Died of wounds in action	......	......	......	......	3	......	......	......	......	......	......	......	1	......	......	......

TABLE VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, United States continental (excluding Alaska).*

	United States, continental (excluding Alaska).							
Mean strength	43,940							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	247	5.62	2	0.05	12	0.27	42.11	0.96
Fevers, undetermined	275	6.26					4.01	.09
Malarial fevers:								
Intermittent	1,910	43.47					34.17	.78
Remittent or continued	173	3.94					7.77	.18
Pernicious	1	.02					.11	.002
Malarial cachexia	76	1.73					5.76	.13
Smallpox	14	.32					1.36	.03
Measles	790	17.98	2	.05	14	.32	46.15	1.05
Eruptive fevers, others	134	3.05			1	.02	5.43	.12
Diphtheria	10	.23					.55	.01
Influenza	2,455	55.87					34.51	.79
Asiatic cholera								
Cholera nostras	10	.23					.10	.002
Dysentery	373	8.49	43	.98	2	.05	56.42	1.28
Bubonic plague								
Yellow fever	1	.02					.05	.001
Leprosy							.92	.02
Beriberi							.61	.01
Erysipelas	45	1.02			3	.07	2.29	.05
Dengue	194	4.41					4.33	.10
Mumps	458	10.42					16.63	.38
Cerebrospinal meningitis, epidemic	11	.25			6	.14	1.57	.04
Malta fever	3	.07					.20	.004
Purulent infection and septicemia	10	.23	2	.05	4	.09	1.52	.03
Trichinosis								
Tuberculosis, pulmonary	178	4.05	101	2.30	27	.61	112.07	2.55
Tuberculosis of other organs	22	.50	7	.16	3	.07	6.02	.14
Syphilis and its results	1,251	28.47	165	3.75	2	.05	108.02	2.46
Chancroid and its results	1,226	27.90	3	.07			76.31	1.74
Gonorrhea and its results	4,704	107.05	53	1.21			247.49	5.63
Cancer and other malignant growths.	9	.20	4	.09	5	.11	3.74	.08
Rheumatism, acute, articular	646	14.70	4	.09			31.32	.71
Rheumatism, subacute and chronic, articular	321	7.31	43	.98	1	.02	46.78	1.06
Alcoholism and its results	1,117	25.42	7	.16	11	.25	12.61	.29
Insanity	75	1.71	87	1.98			11.58	.26
Epilepsy	107	2.44	54	1.23			5.70	.13
Tetanus								
Organic diseases of the heart	243	5.53	80	1.82	8	.18	21.05	.48
Aneurism	4	.09	1	.02	3	.07	.29	.01
Lymphangitis	14	.32					.54	.01
Bronchitis, acute and chronic	2,724	61.99	2	.05			43.85	1.00
Broncho-pneumonia	14	.32			3	.07	1.26	.03
Pneumonia (pneumonic fever)	236	5.37			36	.82	23.08	.53
Diarrhea and enteritis	3,035	69.07	6	.14	1	.02	42.75	.97
Intestinal parasites	87	1.98					2.36	.05
Inguinal and other hernia	251	5.71	53	1.21			28.88	.66
Hepatic abscess	20	.46			4	.09	4.90	.11
Appendicitis	179	4.07	2	.05	6	.14	17.14	.39
Dhobie itch	48	1.09					1.93	.04
Other parasitic diseases of the skin	859	19.55					25.44	.58
Acute nephritis	27	.61					2.44	.06
Chronic nephritis	36	.82	18	.41	5	.11	6.44	.15
Malingering	69	1.57					1.91	.04
External causes, special.								
Fractures, exclusive of gunshot	478	10.88	30	.68	20	.46	60.46	1.38
Dislocations	211	4.80	1	.02			10.62	.24
Sprains and muscular strains	3,856	87.75	9	.20			79.81	1.82
Wounds, gunshot	141	3.21	27	.61	35	.80	15.88	.36
Wounds other than gunshot	2,170	49.38	10	.23	3	.07	54.06	1.23
Sunstroke	8	.18					.09	.002
Frostbite and general freezing	83	1.89	1	.02			2.12	.05
Drowning	1	.02			20	.46	.01	.0002
Poisoning, acute	116	2.64	1	.02	21	.48	1.48	.03
Venomous bites, etc	41	.93					.80	.02
Snake bite								
Other venomous bites, etc								
Diseases and injuries grouped.								
General diseases	18,777	427.33	461	10.49	85	1.93	958.26	21.81
Epidemic diseases	9,004	204.92	47	1.07	32	.73	295.66	6.73
Other general diseases	9,773	222.42	414	9.42	53	1.21	662.60	15.08

Table VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, United States continental (excluding Alaska)*—Continued.

	United States, continental (excluding Alaska).							
Mean strength	43,940.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases of the nervous system and organs of special sense	2,160	49.16	355	8.08	13	0.30	115.41	2.63
Of the nervous system	971	22.10	217	4.94	13	.30	63.85	1.45
Of the eye and its adnexa	815	18.55	75	1.71			32.32	.74
Of the ear and its adnexa	374	8.51	63	1.43			19.24	.44
Diseases of the circulatory system	1,435	32.66	124	2.82	12	.27	78.01	1.78
Diseases of the respiratory system	4,621	105.17	32	.73	42	.96	113.12	2.57
Diseases of the digestive system	11,682	265.86	85	1.93	15	.34	226.30	5.15
Diseases of the genito-urinary system	864	19.66	48	1.09	6	.14	39.90	.91
Diseases of the skin and cellular tissue	4,134	94.08	8	.18			107.79	2.45
Diseases of the organs of locomotion	1,940	44.15	68	1.55			67.07	1.53
Malformations, etc	60	1.37	38	.86			2.18	.05
Diseases, results of old age	2	.05	1	.02			.15	.003
Ill-defined diseases	396	9.01					10.12	.23
Total for disease	46,071	1,048.50	1,220	27.77	173	3.94	1,718.38	39.11
External causes	11,307	257.33	144	3.28	110	2.50	316.64	7.21
Total for disease and external causes	57,378	1,305.83	1,364	31.04	283	6.44	2,035.02	46.32
Subclassification (repeated above):								
Suicide					22			
Homicide					9			
Killed in action								

Table VI (a).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with rates per 1,000 mean strength for the year 1904, white troops, United States (excluding Alaska).*

	United States (excluding Alaska), white.							
Mean strength	40,819							
Causes of admission to sick report.	Admissions		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	245	6.00	2	0.05	12	0.29	41.80	1.02
Fevers, undetermined	260	6.37					3.69	.09
Malarial fevers:								
Intermittent	1,852	45.37					33.10	.81
Remittent or continued	166	4.07					7.23	.18
Pernicious	1	.02					.11	.003
Malarial cachexia	75	1.84					5.67	.14
Smallpox	12	.29					1.23	.03
Measles	777	19.04	2	.05	14	.34	45.49	1.11
Eruptive fevers, others	131	3.21			1	.02	5.34	.12
Diphtheria	10	.24					.55	.01
Influenza	2,393	58.63					33.49	.82
Asiatic cholera								
Cholera nostras	10	.24					.10	.002
Dysentery	360	8 82	42	1.03	2	.05	55.16	1.35
Bubonic plague								
Yellow fever	1	.02					.05	.001
Leprosy							.09	.02
Beriberi							.06	.01
Erysipelas	44	1.08			3	.07	2.17	.05
Dengue	194	4.75					4.33	.11
Mumps	445	10.90					16.15	.40
Cerebrospinal meningitis, epidemic	11	.27			6	.15	1.57	.04
Malta fever	3	.07					.20	.005
Purulent infection and septicemia	6	.15	1	.02	3	.07	.84	.02
Trichinosis								
Tuberculosis, pulmonary	161	3.94	98	2.40	24	.59	101.58	2.49
Tuberculosis of other organs	19	.47	6	.15	2	.05	4.86	.12
Syphilis and its results	1,208	29.60	160	3.92	2	.05	105.52	2.59
Chancroid and its results	1,132	27.73	3	.07			71.17	1.74

TABLE VI (a).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904, white troops, United States (excluding Alaska)*—Continued.

	United States (excluding Alaska), white.							
Mean strength	40,819							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Gonorrhea and its results	4,433	108.61	45	1.11	......	......	236.40	5.80
Cancer and other malignant growths	7	.17	4	.10	2	0.05	2.89	.07
Rheumatism, acute, articular	605	14.82	4	.10	......	......	30.09	.74
Rheumatism, subacute and chronic, articular	300	7.35	41	1.00	1	0.02	43.82	1.07
Alcoholism and its results	1,079	26.43	7	.17	10	.24	12.18	.29
Insanity	70	1.71	83	2.03	......	......	10.98	.27
Epilepsy	101	2.47	52	1.27	......	......	5.30	.13
Tetanus	......	......	......	......	......	......	......	......
Organic diseases of the heart	232	5.68	76	1.86	6	.14	19.80	.49
Aneurism	4	.10	1	.02	2	.05	.29	.01
Lymphangitis	13	.32	......	......	......	......	.51	.01
Bronchitis, acute and chronic	2,515	61.61	2	.05	......	......	41.38	1.01
Broncho-pneumonia	13	.32	......	......	3	.07	1.19	.03
Pneumonia (pneumonic fever)	209	5.12	......	......	31	.76	21.25	.52
Diarrhea and enteritis	2,876	70.46	6	.14	1	.02	40.99	1.00
Intestinal parasites	83	2.03	......	......	......	......	2.28	.06
Inguinal and other hernia	237	5.81	51	1.25	......	......	27.31	.66
Hepatic abscess	18	.44	......	......	3	.07	4.76	.12
Appendicitis	170	4.17	2	.05	5	.12	16.26	.40
Dhobie itch	45	1.10	......	......	......	......	1.91	.05
Other parasitic diseases of the skin	837	20.50	......	......	......	......	24.87	.61
Acute nephritis	24	.59	......	......	......	......	2.35	.06
Chronic nephritis	31	.76	17	.42	5	.12	5.79	.14
Malingering	64	1.57	......	......	......	......	1.89	.05
External causes, special.								
Fractures, exclusive of gunshot	445	10.90	30	.74	20	.49	56.42	1.38
Dislocations	198	4.85	1	.02	......	......	10.14	.25
Sprains and muscular strains	3,509	85.97	9	.22	......	......	73.30	1.80
Wounds, gunshot	115	2.82	27	.66	33	.81	13.75	.34
Wounds other than gunshot	1,948	47.72	10	.24	3	.07	49.01	1.19
Sunstroke	7	.17	......	......	......	......	.07	.002
Frostbite and general freezing	53	1.30	1	.02	......	......	1.42	.03
Drowning	......	......	......	......	19	.47	......	......
Poisoning, acute	113	2.77	1	.02	20	.49	1.41	.03
Venomous bites, etc	39	.96	......	......	......	......	.78	.02
Snake bite	......	......	......	......	......	......	......	......
Other venomous bites, etc	......	......	......	......	......	......	......	......
Diseases and injuries grouped.								
General diseases	18,005	441.09	437	10.71	76	1.86	914.30	22.41
Epidemic diseases	8,781	215.12	46	1.13	32	.78	289.17	7.09
Other general diseases	9,224	225.97	391	9.58	44	1.08	625.13	15.32
Diseases of the nervous system and organs of special sense	2,000	48.99	344	8.43	12	.29	110.63	2.71
Of the nervous system	888	21.75	208	5.10	12	.29	60.83	1.49
Of the eye and its adnexa	745	18.25	73	1.79	......	......	30.72	.75
Of the ear and its adnexa	367	8.99	63	1.54	......	......	19.08	.47
Diseases of the circulatory system	1,328	32.54	117	2.87	9	.22	73.98	1.81
Diseases of the respiratory system	4,280	104.86	31	.76	36	.88	106.74	2.61
Diseases of the digestive system	10,937	267.94	82	2.01	13	.32	215.23	5.27
Diseases of the genito-urinary system	769	18.84	43	1.05	6	.15	35.97	.88
Diseases of the skin and cellular tissue	3,925	96.16	8	.20	......	......	101.93	2.50
Diseases of the organs of locomotion	1,704	41.75	65	1.59	......	......	61.14	1.50
Malformations, etc	56	1.37	36	.88	......	......	1.94	.05
Diseases, results of old age	2	.05	1	.02	......	......	.15	.004
Ill-defined diseases	361	8.84	......	......	......	......	9.81	.24
Total for disease	43,367	1,062.42	1,164	28.52	152	3.72	1,631.81	39.98
External causes	10,340	253.31	142	3.48	106	2.60	292.07	7.15
Total for disease and external causes	53,707	1,315.73	1,306	32.00	258	6.32	1,923.88	47.13
Subclassification (repeated above):								
Suicide	......	......	......	......	22	......	......	......
Homicide	......	......	......	......	7	......	......	......
Killed in action	......	......	......	......	......	......	......	......

TABLE VI (b).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904—Colored troops, United States (excluding Alaska).*

	United States (excluding Alaska), colored.							
Mean strength	S. G. O. 3,121—M. S. O. 3,209.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	2	0.64					0.32	0.10
Fevers, undetermined	15	4.81					.32	.10
Malarial fevers:								
Intermittent	58	18.58					1.07	.34
Remittent or continued	7	2.24					.54	.17
Pernicious								
Malarial cachexia	1	.32					.09	.03
Smallpox	2	.64					.13	.04
Measles	13	4.17					.66	.21
Eruptive fevers, others	3	.96					.09	.03
Diphtheria								
Influenza	62	19.87					1.01	.32
Asiatic cholera								
Cholera nostras								
Dysentery	13	4.17	1	0.31			1.26	.40
Bubonic plague								
Yellow fever								
Leprosy								
Beriberi								
Erysipelas	1	.32					.03	.01
Dengue								
Mumps	13	4.17					.48	.15
Cerebrospinal meningitis, epidemic								
Malta fever								
Purulent infection and septicemia	4	1.28	1	.31	1	0.31	.68	.22
Trichinosis								
Tuberculosis, pulmonary	17	5.45	3	.93	3	.93	10.50	3.36
Tuberculosis of other organs	3	.96	1	.31	1	.31	1.16	.37
Syphilis and its results	43	13.78	5	1.56			2.70	.86
Chancroid and its results	94	30.12					5.14	1.65
Gonorrhea and its results	271	86.83	8	2.49			11.09	3.56
Cancer and other malignant growths	2	.64			3	.93	.85	.27
Rheumatism, acute, articular	41	13.14					1.23	.39
Rheumatism, subacute and chronic, articular	21	6.73	2	62			2.96	.95
Alcoholism and its results	38	12.18			1	.31	.43	.14
Insanity	5	1.60	4	1.25			.60	.19
Epilepsy	6	1.92	2	.62			.40	.13
Tetanus								
Organic diseases of the heart	11	3.52	4	1.25	2	.62	1.26	.40
Aneurism					1	.31		
Lymphangitis	1	.32					.03	.01
Bronchitis, acute and chronic	209	66.97					2.48	.79
Broncho-pneumonia	1	.32					.07	.02
Pneumonia (pneumonic fever)	27	8.65			5	1.56	1.83	.59
Diarrhea and enteritis	159	50.95					1.76	.56
Intestinal parasites	4	1.28					.07	.02
Inguinal and other herniæ	14	4.49	2	.62			1.58	.51
Hepatic abscess	2	.64			1	.31	.14	.05
Appendicitis	9	2.88			1	.31	.88	.28
Dhobie itch	3	.96					.02	.01
Other parasitic diseases of the skin	22	7.05					.56	.18
Acute nephritis	3	.96					.09	.03
Chronic nephritis	5	1.60	1	.31			.66	.21
Malingering	5	1.60					.03	.01
External causes, special.								
Fractures, exclusive of gunshot	33	10.57					4.04	1.30
Dislocations	13	4.17					.47	.15
Sprains and muscular strains	347	111.18					6.50	2.08
Wounds, gunshot	26	8.33			2	.62	2.13	.68
Wounds other than gunshot	222	71.13					4.99	1.60
Sunstroke	1	.32					.02	.01
Frostbite and general freezing	30	9.61					.70	.22
Drowning	1	.32			1	.31	.01	.003
Poisoning, acute	3	.96			1	.31	.07	.02
Venomous bites, etc	2	.64					.02	.01
Snake bite								
Other venomous bites, etc								

ABLE VI (b).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength for the year 1904—Colored troops, United States (excluding Alaska)*—Continued.

	United States (excluding Alaska), colored.							
an strength	S. G. O. 3,121—M. S. O. 3,209.							
	Admissions.		Discharges.		Deaths.		Noneffective.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases and injuries grouped.								
neral diseases	772	247.37	24	7.48	9	2.80	43.97	14.09
Epidemic diseases	223	71.46	1	.31	......	......	6.49	2.08
Other general diseases	549	175.91	23	7.17	9	2.80	37.48	12.01
seases of the nervous system and organs of special sense	160	51.27	11	3.42	1	.31	4.78	1.53
Of the nervous system	83	26.60	9	2.80	1	.31	3.02	.97
Of the eye and its adnexa	70	22.43	2	.62	......	......	1.60	.51
Of the ear and its adnexa	7	2.24	......	......	......	......	.16	.05
iseases of the circulatory system	107	34.29	7	2.18	3	.93	4.04	1.29
iseases of the respiratory system	341	109.26	1	.31	6	1.87	6.38	2.04
iseases of the digestive system	745	238.71	3	.93	2	.62	11.07	3.55
iseases of the genito-urinary system	95	30.44	5	1.56	......	......	3.99	1.28
iseases of the skin and cellular tissue	209	66.97	......	......	......	......	5.85	1.88
iseases of the organs of locomotion	236	75.62	3	.93	......	......	5.94	1.90
alformations, etc	4	1.28	2	.62	......	......	.24	.08
iseases, results of old age	......	......	......	......	......	......	......	......
l-defined diseases	35	11.21	......	......	......	......	.31	.10
Total for disease	2,704	866.39	56	17.45	21	6.54	86.57	27.74
xternal causes	967	309.83	2	.62	4	1.25	24.58	7.88
Total for disease and external causes	3,671	1,176.22	58	18.07	25	7.79	111.15	35.62
ubclassification (repeated above):								
Suicide	......	......	......	......	......	......	......	......
Homicide	......	......	......	......	2	......	......	......
Killed in action	......	......	......	......	......	......	......	......

TABLE VII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904, Alaska, and Porto Rico and Cuba.*

	Alaska.								Porto Rico and Cuba.							
Mean strength	730								124							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever																
Fevers, undetermined	1	1.37					0.01	0.01								
Malarial fevers:																
Intermittent	1	1.37					.01	.01	6	48.39					0.06	0.51
Remittent or continued	1	1.37					.003	.004								
Pernicious																
Malarial cachexia	2	2.74					.08	.11								
Smallpox																
Measles																
Eruptive fevers, others																
Diphtheria																
Influenza	11	15.07					.12	.17	1	8.06					.05	.37
Asiatic cholera																
Cholera nostras																
Dysentery	3	4.11					.53	.73								
Bubonic plague																
Yellow fever																
Leprosy																
Beriberi																
Erysipelas																
Dengue																
Mumps	3	4.11					.17	.24	1	8.06					.01	.09
Cerebrospinal meningitis, epidemic	1	1.37			1	1.37	.05	.07								
Malta fever																
Purulent infection and septicemia																
Trichinosis																
Tuberculosis, pulmonary	4	5.48					.09	.12								
Tuberculosis of other organs	1	1.37			1	1.37	.04	.05								
Syphilis and its results	25	34.25	1	1.37			2.32	3.19	7	56.45					.54	4.36
Chancroid and its results	9	12.33					.51	.70	5	40.32					.55	4.43
Gonorrhea and its results	49	67.12					2.63	3.60	10	80.65					.58	4.67
Cancer and other malignant growths	2	2.74					.07	.10								
Rheumatism, acute, articular	3	4.11					.09	.12	4	32.26					.06	.51
Rheumatism, subacute and chronic, articular	4	5.48					.33	.45								
Alcoholism and its results	22	30.14					.27	.37	9	72.58					.20	1.65
Insanity	1	1.37					.003	.004	1	8.06	1	8.06			.04	.29

Epilepsy																
Tetanus																
Organic diseases of the heart	4	5.48	2	2.74	1	1.37	.13	.18								
Aneurism																
Lymphangitis																
Bronchitis, acute and chronic	15	20.55					.19	.26							.01	.07
Broncho-pneumonia																
Pneumonia (pneumonic fever)									1	8.06			1	8.06	.03	.24
Diarrhea and enteritis	16	21.92					.61	.83	5	40.32					.06	.48
Intestinal parasites																
Inguinal and other herniæ	5	6.85	1	1.37			.14	.19								
Hepatic abscess																
Appendicitis	4	5.48					.28	.38								
Dhobie itch															.06	.51
Other parasitic diseases of the skin	14	19.18					.44	.23							.01	.11
Acute nephritis	1	1.37					.17	.61								
Chronic nephritis																
Malingering	1	1.37					.01	.02								
External causes, special.																
Fractures, exclusive of gunshot	6	8.22					.61	.84								
Dislocations	1	1.37					.05	.07								
Sprains and muscular strains	63	86.30					1.15	1.58	6	48.39					.11	.89
Wounds, gunshot	1	1.37					.05	.07								
Wounds other than gunshot	37	50.69					.72	.98	10	80.65					.28	2.26
Sunstroke																
Frost-bite and general freezing	6	8.22					.54	.74								
Drowning					1	1.37										
Poisoning, acute	1	1.37					.02	.03	1	8.06					.005	.04
Venomous bites, etc.:																
Snake bite																
Other venomous bites, etc																
Diseases and injuries, grouped.																
General diseases	144	197.26	2	2.74	1	1.37	7.45	10.20	45	362.90					2.08	16.77
Epidemic diseases	23	31.51					.98	1.35	10	80.65					.14	1.15
Other general diseases	121	165.75	2	2.74	1	1.37	6.46	8.84	35	282.26					1.94	15.62
Diseases of the nervous system and organs of special sense	34	46.57			1	1.37	1.48	2.03	2	16.13	1	8.06			.06	.46
Of the nervous system	16	21.92			1	1.37	.54	.74	2	16.13	1	8.06			.06	.46
Of the eye and its adnexa	12	16.44					.46	.64								
Of the ear and its adnexa	6	8.22					.48	.65								
Diseases of the circulatory system	21	28.77	4	5.48	1	1.37	.72	.99	5	40.32					.14	1.17
Diseases of the respiratory system	42	57.53					.55	.75	4	32.26			1	8.06	.21	1.67
Diseases of the digestive system	96	131.50	1	1.37	1	1.37	2.10	2.88	20	161.29					.52	1.23

TABLE VII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904, Alaska, and Porto Rico and Cuba*—Continued.

	Alaska.								Porto Rico and Cuba.							
Mean strength	730								124							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases and injuries, grouped—Con.																
Diseases of the genito-urinary system	27	36.98					1.44	1.97	3	24.19					0.22	1.76
Diseases of the skin and cellular tissue	50	68.49					1.45	1.98	6	48.39					.84	6.74
Diseases of the organs of locomotion	34	46.57	2	2.74			1.28	1.75								
Malformations, etc																
Diseases, results of old age																
Ill-defined diseases	6	8.22					.15	.20	1	8.06					.01	.09
Total for disease	454	621.92	9	12.33	4	5.48	16.61	22.75	86	693.55	1	8.06	1	8.06	4.08	32.90
External causes	158	216.44	1	1.37	1	1.37	4.01	5.49	24	193.55					.57	4.56
Total for disease and external causes	612	838.36	10	13.70	5	6.85	20.63	28.24	110	887.10	1	8.06	1	8.06	4.64	37.46
Subclassification (repeated above):																
Suicide																
Homicide																
Killed in action																
Died of wounds in action																

TABLE VII (a).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904, Philippine Islands and Hawaii.*

	Philippine Islands.								Hawaii.							
Mean strength	11,996								204							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	23	1.92			5	0.42	3.37	0.28	3	14.71			2	9.80	0.35	1.70
Fevers, undetermined	400	33.34					6.32	.53	3	14.71					.02	.09
Malarial fevers:																
Intermittent	1,914	159.55					37.62	3.14	1	4.90					.02	.08
Remittent or continued	701	58.44			1	.08	18.83	1.57								
Pernicious	4	.33			2	.17	.09	.01								
Malarial cachexia	28	2.33					2.14	.18								
Smallpox	4	.33			2	.17	.29	.02							.003	.01
Measles	18	1.50					.97	.08							.07	.36
Eruptive fevers, others									2	9.80					.07	.36
Diphtheria																
Influenza	16	1.33					.28	.02								
Asiatic cholera	1	.08					.03	.003								
Cholera nostras	2	.17					.03	.003								
Dysentery	917	76.44			11	.92	66.86	5.57	7	34.31					.13	.64
Bubonic plague																
Yellow fever																
Leprosy																
Beriberi	1	.08					.21	.02								
Erysipelas	1	.08					.02	.002								
Dengue	728	60.69					12.70	1.06	11	53.92					.16	.80
Mumps	93	7.75					5.11	.43	1	4.90					.04	.21
Cerebrospinal meningitis, epidemic																
Malta fever	2	.17					.87	.07								
Purulent infection and septicemia	1	.08			1	.08	.09	.01								
Trichinosis																
Tuberculosis, pulmonary	61	5.08			3	.25	9.77	.81							.03	.13
Tuberculosis of other organs	4	.33					1.23	.10								
Syphilis and its results	677	56.43					76.79	6.40	3	14.71					.06	.29
Chancroid and its results	664	55.35					41.20	3.43	13	63.73					1.05	5.13
Gonorrhea and its results	2,227	185.64					144.57	12.05	17	83.33					.66	3.23
Cancer and other malignant growths	5	.42			2	.17	.36	.03								
Rheumatism, acute articular	96	8.00					5.82	.49								
Rheumatism, subacute and chronic, articular	80	6.67					5.54	.46	1	4.90					.01	.07
Alcoholism and its results	454	37.85					7.21	.60	13	63.73					.14	.71
Insanity	21	1.75					2.20	.18								
Epilepsy	20	1.67					1.61	.13								

TABLE VII (a).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904, Philippine Islands and Hawaii*—Continued.

	Philippine Islands.								Hawaii.							
Mean strength	11,996								204							
Causes to admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Tetanus																
Organic diseases of the heart	21	1.75			[a]5	.42	4.02	.34								
Aneurism	1	.08			1	.08	.13	.01								
Lymphangitis	9	.75					.16	.01								
Bronchitis, acute and chronic	475	39.50					10.96	0.91	7	34.31					0.10	0.51
Broncho-pneumonia	1	.08			1	.08	.38	.03								
Pneumonia (pneumonic fever)	7	.58			1	.08	.77	.06	1	4.90					.04	.17
Diarrhea and enteritis	1,926	160.55			2	.17	44.45	3.71	12	58.82					.14	.70
Intestinal parasites	60	5.00					2.03	.17								
Inguinal and other herniae	57	4.75					8.91	.74								
Hepatic abscess	5	.42			3	.25	.80	.07								
Appendicitis	42	3.50					4.29	.36	2	9.80					.05	.25
Dhobie itch	240	20.01					6.31	.53	1	4.90					.03	.15
Other parasitic diseases of the skin	308	25.67					7.69	.64	8	39.22					.25	1.25
Acute nephritis	4	.33			1	.08	.11	.01								
Chronic nephritis	8	.67			2	.17	1.05	.09								
Malingering	6	.50					.10	.01								
External causes, special.																
Fractures, exclusive of gunshot	80	6.67					10.68	.89	2	9.80					.39	1.89
Dislocations	37	3.08			1	.08	1.98	.16								
Sprains and muscular strains	666	55.52					16.09	1.34	25	122.55					.27	1.33
Wounds, gunshot	62	5.17			9	.75	11.32	.94	1	4.90					.22	1.08
Wounds other than gunshot	609	50.76			12	1.00	17.52	1.46	14	68.63					.37	1.82
Sunstroke	19	1.58					.33	.03								
Frostbite and general freezing																
Drowning					22	1.83										
Poisoning, acute	19	1.58			1	.08	.32	.03								
Venomous bites, etc	51	4.25					.94	.08								
Snake bite																
Other venomous bites, etc																

Diseases and injuries grouped.																
General diseases	9,222	768.76	1	0.08	27	2.25	452.24	37.70	76	372.55	....	....	2	9.80	2.87	14.09
Epidemic diseases	4,886	407.30	....	....	21	1.75	156.25	13.03	28	137.25	....	....	2	9.80	.87	4.27
Other general diseases	4,336	361.46	1	.08	6	.50	295.99	24.67	48	235.30	....	....	....	....	2.00	9.82
Diseases of the nervous system and organs of special sense	614	51.18	1	.08	1	.08	32.67	2.72	14	68.63	....	....	....	....	.66	3.25
Of the nervous system	244	20.34	....	....	1	.08	15.47	1.29	....	....	....	....	....	....	....	....
Of the eye and its adnexa	202	16.84	1	.08	....	....	9.28	.77	10	49.02	....	....	....	....	.59	2.89
Of the ear and its adnexa	168	14.00	....	....	....	....	7.91	.66	4	19.61	....	....	....	....	.07	.36
Diseases of the circulatory system	404	33.68	....	....	7	.58	23.21	1.93	20	98.04	....	....	....	....	1.00	4.92
Diseases of the respiratory system	766	63.85	....	....	2	.17	18.55	1.55	11	53.92	....	....	....	....	.20	1.00
Diseases of the digestive system	3,869	322.52	....	....	6	.50	96.42	8.04	53	259.80	....	....	....	....	.93	4.57
Diseases of the genito-urinary system	272	22.67	....	....	3	.25	11.87	.99	12	58.82	....	....	....	....	.65	3.19
Diseases of the skin and cellular tissue	1,945	162.14	....	....	....	....	52.66	4.39	35	171.57	....	....	....	....	.81	3.98
Diseases of the organs of locomotion	476	39.68	....	....	....	....	15.96	1.33	7	34.31	....	....	....	....	.11	.56
Malformations, etc	6	.50	....	....	....	....	.53	.04	....	....	....	....	....	....	....	....
Diseases, results of old age	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ill-defined diseases	98	8.17	....	....	....	....	3.58	.30	2	9.80	....	....	....	....	.11	.55
Total for disease	17,672	1,473.16	2	.17	46	3.83	707.70	59.00	230	1,127.45	....	....	2	9.80	7.37	36.11
External causes	2,574	214.57	....	....	59	4.92	82.51	6.88	64	313.72	....	....	....	....	1.58	7.75
Total for disease and external causes	20,246	1,687.73	2	.17	105	8.75	790.21	65.88	294	1,441.17	....	....	2	9.80	8.95	43.86
Subclassification (repeated above):																
Suicide	....	....	....	....	5	....	....	....	....	....	....	....	....	....	....	....
Homicide	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
Killed in action	....	....	....	....	21	....	....	....	....	....	....	....	....	....	....	....
Died of wounds in action	....	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....

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a Includes 2 deaths from endocarditis.

TABLE VII (b).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904—China, and Army transports.*

	China.								Army transports.							
Mean strength	142								1,604							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	1	7.04					0.31	2.15	6	3.74			1	0.62	0.29	0.18
Fevers, undetermined	25	176.06					.33	2.29	2	1.25					.02	.01
Malarial fevers:																
Intermittent	10	70.42					.11	.77	111	69.20					1.95	1.22
Remittent or continued									15	9.35					.72	.45
Pernicious																
Malarial cachexia									1	.62					.18	.11
Smallpox									2	1.25			1	.62	.07	.05
Measles	6	42.25					.34	2.41	33	20.57					1.02	.59
Eruptive fevers, others	1	7.04					.01	.08	1	.62					.01	.01
Diphtheria																
Influenza	3	21.13					.05	.38								
Asiatic cholera																
Cholera nostras																
Dysentery									21	13.09			2	1.25	11.35	7.08
Bubonic plague																
Yellow fever																
Leprosy																
Beriberi															.16	.10
Erysipelas	1	7.04					.05	.33	1	.62					.31	.19
Dengue																
Mumps	11	77.46					.29	2.06	35	21.82					.82	.51
Cerebrospinal meningitis, epidemic																
Malta fever																
Purulent infection and septicemia																
Trichinosis																
Tuberculosis, pulmonary	1	7.04					.07	.46	6	3.74					5.09	3.18
Tuberculosis of other organs																
Syphilis and its results	12	84.51					.41	2.87	21	13.09					4.81	3.00
Chancroid and its results	17	119.72					.60	4.23	27	16.83					1.74	1.09
Gonorrhea and its results	29	204.22					.93	6.56	70	43.64					3.70	2.31
Cancer and other malignant growths																
Rheumatism, acute, articular									6	3.74					.25	.16
Rheumatism, subacute and chronic, articular									3	1.87					1.23	.77
Alcoholism and its results	3	21.13					.03	.21	4	2.49					.12	.08
Insanity									1	.62			1	.62	1.93	1.20

Epilepsy															.26	.16
Tetanus																
Organic diseases of the heart													1	.62	1.06	.66
Aneurism																
Lymphangitis																
Bronchitis, acute and chronic	2	14.08					.02	.17	54	33.67					1.05	.66
Broncho-pneumonia	1	7.04					.08	.60	2	1.25					.11	.07
Pneumonia (pneumonic fever)									5	3.12			1	.62	.15	.10
Diarrhea and enteritis	3	21.13					.02	.17	35	21.82					4.22	2.63
Intestinal parasites									1	.62					.01	.01
Inguinal and other herniae															.26	.16
Hepatic abscess									1	.62					.15	.10
Appendicitis									1	.62					.26	.16
Dhobie itch																
Other parasitic diseases of the skin	1	7.04					.005	.04	2	1.25					.06	.04
Acute nephritis	1	7.04					.01	.06	2	1.25					.03	.02
Chronic nephritis									1	.62					.17	.11
Malingering									1	.62					.003	.002
External causes, special.																
Fractures, exclusive of gunshot	1	7.04					.06	.42	4	2.49					.77	.48
Dislocations									1	.62					.10	.06
Sprains and muscular strains	6	42.25					.10	.70	7	4.36					.53	.33
Wounds, gunshot									1	.62					.54	.34
Wounds other than gunshot	6	42.25					.05	.35	4	2.49					.67	.42
Sunstroke																
Frostbite and general freezing															.10	.06
Drowning					1	7.04							1	.62		
Poisoning, acute									1	.62					.03	.02
Venomous bites, etc																
Snake bite																
Other venomous bites, etc																
Diseases and injuries grouped.																
General diseases	121	852.11					3.53	24.84	379	236.28			4	2.49	33.51	20.89
Epidemic diseases	58	408.45					1.49	10.47	240	149.63			4	2.49	17.04	10.62
Other general diseases	63	443.66					2.04	14.37	139	86.65					16.47	10.27
Diseases of the nervous system and organs of special sense	4	28.17					.05	.38	55	34.28			1	.62	7.72	4.81
Of the nervous system	2	14.08					.03	.19	42	26.18			1	.62	5.46	3.40
Of the eye and its adnexa	1	7.04					.02	.15	8	4.99					.84	.52
Of the ear and its adnexa	1	7.04					.005	.04	5	3.12					1.42	.89
Diseases of the circulatory system	7	49.30					.19	1.37	11	6.86			1	.62	2.03	1.27
Diseases of the respiratory system	6	42.25					.27	1.92	73	45.51			1	.62	2.14	1.33
Diseases of the digestive system	21	147.88					.41	2.87	131	81.67					7.75	4.83
Diseases of the genito-urinary system	2	14.08					.03	.19	16	9.97					.68	.43

TABLE VII (b).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904—China, and Army transports*—Continued.

	China.								Army transports.							
Mean strength	142								1,604							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases and injuries grouped—Con.																
Diseases of the skin and cellular tissue	10	70.42					0.27	1.87	20	12.47					1.27	0.79
Diseases of the organs of locomotion	4	28.17					.13	.88	14	8.73					1.06	.66
Malformations, etc															.13	.08
Diseases, results of old age																
Ill-defined diseases									17	10.60					.33	.20
Total for disease	175	1,232.39					4.87	34.32	716	446.38			7	4.36	56.62	35.30
External causes	23	161.97			1	7.04	.41	2.91	32	19.95			2	1.25	3.96	2.47
Total for disease and external causes	198	1,394.36			1	7.04	5.29	37.23	748	466.33			9	5.61	60.58	37.77
Subclassification (repeated above):																
Suicide																
Homicide																
Killed in action																
Died of wounds in action																

TABLE VIII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904—Porto Rican and Filipino troops.*

	Porto Rican troops.								Filipino troops.							
Mean strength	540								4,610 [a]							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	1	1.85					0.31	0.58	4	0.87			3	0.65	0.57	0.12
Fevers, undetermined									159	34.49					1.63	.35
Malarial fevers:																
Intermittent	65	120.37					1.60	2.95	1,404	304.56					18.26	3.96
Remittent or continued									287	62.26					5.93	1.29
Pernicious									4	.87			2	.43	.16	.04
Malarial cachexia									6	1.30					.31	.07
Smallpox	2	3.70					.15	.27	8	1.74			1	.22	.69	.15
Measles									1	.22					.01	.003
Eruptive fevers, other	6	11.11					.22	.40	17	3.69					.94	.20
Diphtheria																
Influenza	46	85.19					1.07	1.99	11	2.39					.19	.04
Asiatic cholera									1	.22					.06	.01
Cholera, nostras									2	.43					.03	.01
Dysentery	8	14.82			1	1.85	.29	.54	80	17.35			1	.22	2.84	.62
Bubonic plague																
Yellow fever																
Leprosy									2	.43	1	0.22			.17	.04
Beriberi									344	74.62	6	1.30	7	1.52	33.30	7.22
Erysipelas									2	.43					.10	.02
Dengue									56	12.15					1.17	.25
Mumps	6	11.11					.20	.37	9	1.95					.16	.04
Cerebrospinal meningitis, epidemic																
Malta fever																
Purulent infection and septicemia																
Trichinosis																
Tuberculosis, pulmonary	3	5.55	1	1.85			.28	.52	34	7.38	12	2.60	13	2.82	8.80	1.91
Tuberculosis of other organs									2	.43					.28	.06
Syphilis and its results	62	114.81	2	3.70	1	1.85	5.18	9.59	26	5.64	1	.22			2.33	.51
Chancroid and its results	70	129.63					5.31	9.83	32	6.94					1.59	.35
Gonorrhea and its results	73	135.18					4.14	7.68	252	54.67			1	.22	12.05	2.61
Cancer and other malignant growths																
Rheumatism, acute, articular	16	29.63					.79	1.47	11	2.39					.51	.11
Rheumatism, subacute and chronic, articular	1	1.85					.01	.02	10	2.17					.33	.07

a Includes a battalion of Philippine Scouts temporarily on duty in the United States.

TABLE VIII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1904—Porto Rican and Filipino troops*—Continued.

	Porto Rican troops.								Filipino troops.							
Mean strength	540								4,610							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Alcoholism and its results									7	1.52					0.08	0.02
Insanity									4	.87					.34	.07
Epilepsy									3	.65					.19	.04
Tetanus																
Organic diseases of the heart									5	1.08					.11	.02
Aneurism																
Lymphangitis									3	.65					.02	.004
Bronchitis, acute and chronic	18	33.33					0.54	1.00	266	57.70					4.64	1.01
Broncho-pneumonia									4	.87					.38	.08
Pneumonia (pneumonic fever)	3	5.55					.15	.28	15	3.25			1	0.22	1.00	.22
Diarrhea and enteritis	26	48.15	1	1.85			.41	.76	353	76.58					3.79	.82
Intestinal parasites									8	1.74					.73	.16
Inguinal and other herniæ									5	1.08	1	0.22			1.17	.25
Hepatic abscess																
Appendicitis									1	.22					.01	.002
Dhobie itch									86	18.65					2.17	.47
Other parasitic diseases of the skin	20	37.01					.70	1.30	51	11.06					1.53	.33
Acute nephritis																
Chronic nephritis									3	.65			1	.22	.61	.13
Malingering																
External causes, special.																
Fractures, exclusive of gunshot	2	3.70					1.01	1.87	10	2.17	1	.22	1	.22	1.43	.31
Dislocations	2	3.70					.06	.12	3	.65					.11	.02
Sprains and muscular strains	14	25.93					.46	.84	68	14.75					.88	.19
Wounds, gunshot	2	3.70	1	1.85			.65	1.20	24	5.21			11	2.39	2.54	.55
Wounds other than gunshot	34	62.96					.93	1.73	141	30.59			47	10.20	3.81	.83
Sunstroke									2	.43					.02	.004
Frostbite and general freezing																
Drowning													5	1.08		
Poisoning, acute									3	.65					12	.03
Venomous bites, etc	2	3.70					.07	.14	16	3.47					.59	.13
Snake bite																
Other venomous bites, etc																

Diseases and injuries grouped.																
General diseases	360	666.67	3	5.55	2	3.70	19.59	36.28	2,786	604.34	21	4.56	28	6.07	93.05	20.19
Epidemic diseases	134	248.15			1	1.85	3.84	7.11	2,401	520.82	7	1.52	14	3.04	66.62	14.45
Other general diseases	226	418.52	3	5.55	1	1.85	15.75	29.17	385	83.52	14	3.04	14	3.04	26.43	5.73
Diseases of the nervous system and organs of special sense	12	22.22					.26	.49	127	27.55	2	.43			3.97	.86
Of the nervous system	4	7.41					.10	.19	47	10.20					2.07	.45
Of the eye and its adnexa	7	12.96					.07	.12	62	13.45	2	.43			1.15	.25
Of the ear and its adnexa	1	1.85					.09	.17	18	3.90					.75	.16
Diseases of the circulatory system	16	29.63					1.06	1.97	40	8.68			2	.43	1.57	.34
Diseases of the respiratory system	28	51.85					.81	1.56	369	80.05			2	.43	7.93	1.72
Diseases of the digestive system	110	203.70	1	1.85			1.96	3.63	761	165.08	1	.22			10.29	2.23
Diseases of the genito-urinary system	31	57.41					1.69	3.14	40	8.68			1	.22	1.64	.36
Diseases of the skin and cellular tissue	98	181.49					3.37	6.24	475	103.04	1	.22	1	.22	12.32	2.67
Diseases of the organs of locomotion	21	38.89					.57	1.05	105	22.78					2.61	.57
Malformations, etc									1	.22					.38	.08
Diseases, results of old age									1	.22	1	.22			.28	.06
Ill defined diseases	1	1.85					.02	.04	12	2.60			1	.22	.22	.05
Total for disease	677	1,253.70	4	7.41	2	3.70	29.37	54.40	4,717	1,023.21	26	5.64	35	7.59	134.25	29.12
External causes	90	166.67	3	5.55			4.02	7.44	525	113.88	1	.22	68	14.75	13.49	2.93
Total for disease and external causes	767	1,420.37	7	12.96	2	3.70	33.39	61.84	5,242	1,137.09	27	5.86	103	22.34	147.71	32.05
Subclassification (repeated above):																
Suicide													2			
Homicide																
Killed in action													56			
Died of wounds in action													25			

INTERNATIONAL MILITARY-MEDICAL STATISTICS FOR THE YEAR 1904.

The following tables are those agreed upon at the meeting of the International Commission for the Unification of the Medical Statistics of Armies held at Budapest in 1894, and modified by the last meeting held at Madrid in 1903. They are calculated for the United States Army proper (white and colored), and include enlisted men only. All tables except I, II, and VIII give both absolute and proportional numbers. Dispositions include cases remaining from last year, but do not include cases remaining at the close of the current year. Deaths include suicides and accidents. Days lost include those lost this year by cases remaining from last year.

Table I shows in absolute numbers, by departments, the mean strength of the command, the admissions to quarters, to hospital, and total admissions; the disposition of the sick, total, and the number returned to duty, died, and otherwise disposed of, and the total number of days of sickness.

Table II gives the same data in ratios per 1,000, and also shows the days lost per soldier and per admission.

Table III shows, by arms of service, the mean strength, the total admissions, and those to hospital only, the total dispositions, and the number of those returned to duty, and the number that died.

Table IV gives the same data as Table III, by months.

Table V shows for each of thirty-nine of the larger garrisons the mean strength, admissions to hospital, and total admissions, and the deaths.

Table VI shows for each of the thirty-five diseases or disease groups agreed upon by the International Commission the number remaining under treatment at the commencement and close of the current year, the admissions and dispositions for the year, the total sick days, and the average number of days per case.

Table VII shows the admissions, by arms of service, for the diseases and disease groups referred to in Table VI.

Table VIII shows the same data as Table VII, by months.

Table IX shows deaths, by rank, by length of service, and by age.

Table X shows the same data as Table IX for discharges for physical disability.

INTERNATIONAL TABLE I.—*Movement of sick, by army corps (departments), absolute numbers.*

Department.	Mean strength.	Admitted sick.			Sick disposed of.				Total days sick.
		Total.	To hospital.	To quarters.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Total.	
Department of the East	12,937	16,868	10,826	6,042	16,143	72	551	16,766	183,039
Department of the Gulf	3,482	5,014	3,798	1.216	4,822	14	131	4,967	54,014
Department of the Lakes	2,523	3,578	2,736	842	3,402	20	189	3,611	43,430
Department of the Missouri	7,842	10,722	6,832	3,890	10,221	51	397	10,669	105,321
Department of Dakota	2,613	3,248	2,572	676	3,109	15	137	3,261	37,315
Department of Texas	3,033	4,127	2,786	1,341	4,005	14	121	4,140	46,918
Department of the Colorado	2,122	3,360	2,348	1,012	3,210	23	100	3,333	35,823
Department of California	5,971	7,229	3,791	3,438	6,012	17	156	6,185	56,715
Department of the Columbia (excluding Alaska)	2,951	2,683	2,028	655	2,548	6	85	2,639	34,084
Alaska	730	612	445	167	565	5	14	584	7,546
Department of Luzon	6,197	11,026	8,577	2,449	10,142	30	206	10,378	109,327
Department of the Visayas	2,395	3,292	2,818	474	3,100	16	70	3,186	52,284
Department of Mindanao	3,277	5,712	4,396	1,316	5,416	45	87	5,548	78,226

INTERNATIONAL TABLE II.—*Movement of sick, by army corps (departments), proportionate numbers.*

Department.	In 1,000 of mean strength.			In 1,000 sick disposed of.			Days lost.	
	Total admissions.	Admissions to hospital.	Deaths.	Returned to duty (recovered.)	Died.	Otherwise disposed of.	Per soldier.	Per admission.
Department of the East	1,303.86	836.82	5.57	962.84	4.29	32.87	14.15	10.85
Department of the Gulf	1,439.98	1,090.75	4.02	970.80	2.82	26.38	15.51	10.78
Department of the Lakes	1,418.15	1,084.42	7.93	942.12	5.54	52.34	17.21	12.14
Department of the Missouri	1,367.26	871.21	6.50	958.01	4.78	37.21	13.43	9.82
Department of Dakota	1,243.02	984.31	5.74	953.39	4.60	42.01	14.28	11.49
Department of Texas	1,360.70	918.56	4.62	967.39	3.38	29.23	15.47	11.37
Department of the Colorado	1,583.41	1,106.50	10.84	963.10	6.90	30.00	16.88	10.66
Department of California	1,210.68	634.90	2.85	972.03	2.75	25.22	9.50	7.84
Department of the Columbia (excluding Alaska)	909.18	687.22	2.03	965.52	2.27	32.21	11.52	12.70
Alaska	838.36	609.59	6.85	967.47	8.56	23.97	10.34	12.33
Department of Luzon	1,779.25	1,384.06	4.84	977.26	2.89	19.85	17.64	9.92
Department of the Visayas	1,374.53	1,176.62	6.68	973.01	5.02	21.97	21.83	15.88
Department of Mindanao	1,743.06	1,341.47	13.73	976.21	8.11	15.68	23.87	13.69

INTERNATIONAL TABLE III.—*Movement of sick, by arms of service.*

Arm of service.	Absolute numbers.						Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
	Mean strength.[a]	Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.	Fit for duty (recovered).	Deaths.
Infantry	23,296	29,929	21,545	30,062	28,734	174	1,284.73	924.84	7.47	955.82	5.79
Cavalry	11,736	19,323	13,482	19,472	18,732	80	1,646.47	1,148.77	6.82	962.00	4.11
Coast Artillery	12,483	16,660	11,557	16,684	16,099	63	1,334.62	925.82	5.05	964.94	3.78
Field Artillery	3,394	4,579	3,313	4,575	4,396	15	1,349.15	976.13	4.42	960.87	3.28
Engineers	1,090	1.920	1,069	1,878	1,813	7	1,761.47	980.73	6.42	965.39	3.73
Ordnance	684	517	136	521	500	5	755.85	198.83	7.31	959.69	9.60
Signal Corps	890	777	483	773	729	7	873.03	542.70	7.86	943.08	9.06
Medical Department	3,110	2,330	1,740	2,303	2,195	22	749.20	559.49	7.07	953.10	9.55
Others	3,456	3,551	2,492	3,503	3,214	33	1,027.49	721.06	9.55	917.50	9.42
Total	60,139	79,586	55,817	79,771	76,412	406	1,323.37	928.13	6.75	954.13	5.09

[a] The full strength of the Army "present and absent" is used in computing the ratios in this table.

INTERNATIONAL TABLE IV.—*Movement of sick, by months.*

Month.	Absolute numbers.						Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
	Mean strength.	Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.	Fit for duty (recovered).	Deaths.
January	58,502	7,178	4,989	7,199	6,879	22	122.70	85.27	0.37	955.55	3.06
February	59,892	7,134	4,889	7,156	6,875	26	119.11	81.63	.43	960.87	3.63
March	59,391	7,763	5,453	7,721	7,359	44	130.07	91.82	.72	953.11	5.70
April	60,084	7,000	4,817	7,130	6,791	44	80.17	80.17	.72	952.45	6.17
May	59,670	6,581	4,785	6,786	6,485	54	110.29	80.19	.89	955.64	7.96
June	58,466	6,201	4,611	6,240	5,959	33	106.06	78.83	.55	954.97	5.29
July	59,225	6,670	4,724	6,535	6,232	45	112.62	79.76	.74	953.64	6.89
August	59,023	6,860	4,702	6,776	6,561	37	116.23	79.66	.61	968.27	5.46
September	57,618	6,456	4,445	6,521	6,235	23	112.05	77.15	.38	956.14	3.53
October	57,505	6,165	4,351	6,150	5,882	30	107.21	75.66	.50	956.42	4.88
November	57,122	5,777	4,090	5,729	5,538	21	101.13	71.60	.36	966.66	3.67
December	58,380	5,801	3,961	5,828	5,616	27	99.37	67.85	.46	965.17	4.63
Total	58,740	79,586	55,817	79,771	76,412	406	1,354.89	950.24	6.75	957.89	5.09

NOTE.—Ratios for deaths based on mean strength, "present and absent."

INTERNATIONAL TABLE V.—*Movement of sick in the larger garrisons.*

Garrisons.	Mean strength.	Total admissions.		Admissions to hospital.		Deaths.	
		Absolute number.	Per 1,000 mean strength.	Absolute number.	Per 1,000 mean strength.	Absolute number.	Per 1,000 mean strength.
Madison Barracks, N. Y	517	267	516.44	96	185.69	4	7.74
Presidio of Monterey, Cal	908	642	707.05	504	555.07	5	5.51
Fort Niobrara, Nebr	533	425	797.37	220	412.76	3	5.63
Vancouver Barracks, Wash	813	706	868.39	621	763.84	....	....
Plattsburg Barracks, N. Y	743	708	952.89	653	878.87	5	6.73
Fort Sam Houston, Tex	785	763	971.97	616	784.71	3	3.82
Fort Riley, Kans	1,447	1,539	1,063,58	1,484	1,025.57	5	3.46
Fort McDowell, Cal. (depot of recruits and casuals)	591	641	1,084.60	437	739.42	3	5.08
Fort Totten, N. Y	517	598	1,156.68	481	930.37	....	....
Fort Hamilton, N. Y	558	661	1,184.59	308	551.97	1	1.79
Fort Slocum, N. Y	603	726	1,203.98	634	1,051.41	7	11.61
Fort Assinniboine, Mont	595	729	1,225.21	568	954.62	4	6.72
Fort McPherson, Ga	509	635	1,247.54	417	819.25	5	9.82
Fort Monroe, Va	860	1,083	1,259.30	698	811.63	2	2.33
Presidio, San Francisco, Cal. (post)	1,931	2,439	1,263.08	1,149	595.03	4	2.07
Fort Sheridan, Ill	650	838	1,289.23	710	1,092.31	5	7.69
Fort Leavenworth, Kans	2,123	2,789	1,313.71	1,572	740.46	14	6.59
Fort Snelling, Minn.	716	991	1,384.07	929	1,297.49	5	6.98
Fort D. A. Russell, Wyo	538	745	1,384.76	515	957.25	7	13.01
Fort Logan, Colo	655	1,027	1,567.94	824	1,258.02	10	15.27
Fort Clark, and subpost Eagle Pass, Tex	528	873	1,653.41	520	984.85	2	3.79
Fort Robinson, Nebr	521	891	1,710.17	466	894.43	7	13.44
Camp Geo. H. Thomas, Ga	607	1,076	1,772,66	899	1,481.05	1	1.65
Columbus Barracks, Ohio	783	1,527	1,950.19	1,297	1,656.45	11	14.05
Fort Ethan Allen, Vt	671	1,435	2,138.60	726	1,081.97	5	7.45
Jefferson Barracks, Mo	755	1,649	2,184.11	676	895.36	6	7.95
Fort Myer, Va	592	1,312	2,216.22	977	1,650.34	2	3.38
Fort Wm. H. Seward, Alaska (Camp Skagway)	181	160	883.97	128	707.18	1	5.52
Honolulu, Hawaii	204	294	1,441.17	185	906.86	2	9.80
Camp Warwick, Cebu, P. I	255	141	552.94	139	545.10	4	15.69
Camp Connell, Samar, P. I	656	631	961.89	619	943.58	2	3.05
Manila posts, Manila, P. I	2,261	3,690	1,632.02	2,715	1,200.88	1	.44
Marahui, Mindanao, P. I	*a* 659	1,089	1,652.50	885	1,342.94	6	9.10
Camp McGrath, Luzon, P. I	423	713	1,685.58	472	1,115.84	2	4.73
Jolo, Jolo Island, P. I	573	1,006	1,755.67	867	1,513.09	5	8.73
Camp Jossman, Guimaras, P. I.	748	1,394	1,863.64	1,347	1,800.80	2	2.67
Camp Bumpus, Leyte, P. I	269	509	1,892.19	332	1,234.20	2	7.43
Zamboanga, Mindanao, P. I	229	450	1,965.07	391	1,707.42	4	17.47
Camp Stotsenburg, Luzon, P. I.	*a* 690	1,783	2,584.06	1,613	2,337.68	3	4.35

a The data regarding these two posts include Filipino Scouts, whose mean strength was 69 and 128 respectively.

INTERNATIONAL TABLE VI.—*Movement of sick according to most important diseases.*

Numbers of national nomenclature.[a]	Numbers of international nomenclature.	Diseases of the international nosological table.	Absolute numbers.									Proportionate numbers.					
			Remaining at close of year 1903.	Admitted in 1904.	Total remaining and admitted.	Disposed of in 1904.						Per 1,000 of mean strength.		Per 1,000 disposed of.			Average days of treatment.
						Fit for duty.	Died.	Otherwise.	Total.	Remaining at close of 1904.	Total days sick in 1904.	Admissions.	Deaths.	Fit for duty.	Died.	Otherwise.	
56 a and b	1	Alkoholismus acutus, including delirium tremens	16	1,498	1,514	1,462	11	28	1,501	13	6,037	25.50	0.18	974.0	7.3	18.7	4.0
90	2	Bronchitis acuta	70	3,091	3,161	3,066	......	44	3,110	51	17,278	52.62	......	985.9	......	14.1	5.6
12	3	Cholera Asiatica	......	1	1	1	......	......	1	......	12	.02	......	1,000.0	......	......	12.0
13	4	Cholera nostras	......	12	12	11	......	1	12	......	17	.20	......	916.7	......	83.3	3.9
9	5	Diphtheria et croup	......	11	11	7	......	1	8	3	218	.19	......	875.0	......	125.0	19.8
14 a and b	6	Dysenteria	164	1,321	1,485	1,182	15	155	1,352	133	49,518	22.49	.25	874.3	11.1	114.6	37.5
18	7	Erysipelas	3	48	51	43	3	3	49	2	946	.82	.05	877.6	61.2	61.2	19.7
4 a	8	Febris intermittens (malaria)[b]	68	3,953	4,021	3,899	......	68	3,967	54	27,063	67.30	......	982.9	......	17.1	6.8
3	9	Febris recurrens	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
37 a to d	10	Gonorrhoea	382	7,106	7,488	6,692	......	361	7,053	435	146,609	120.97	......	948.8	......	51.2	20.6
108 a and b	11	Hernia	31	313	344	245	......	66	311	33	13,981	5.33	......	787.8	......	212.2	44.7
10	12	Influenza	20	2,485	2,505	2,431	......	36	2,467	38	12,797	42.31	......	985.4	......	14.6	5.1
169	13	Insolatio (Hitzschlag, coup de chaleur)	......	27	27	27	......	......	27	......	156	.46	......	1,000.0	......	......	5.8
61 b	14	Meningitis cerebro-spinalis epidemica	......	12	12	5	7	......	12	......	595	.20	.12	416.7	583.3	......	49.6
6	15	Morbilli	26	847	873	806	14	46	866	7	17,773	14.42	.23	930.7	16.2	53.1	21.0
19	16	Parotitis epidemica	11	601	612	582	......	28	610	2	8,447	10.23	......	954.1	......	45.9	14.1
94	17	Pleuritis	15	192	207	178	2	13	193	14	6,029	3.27	.03	922.3	10.3	67.4	31.4
93	18	Pneumonia crouposa sive lobaris	13	250	263	181	39	18	238	25	8,811	4.26	.65	760.5	163.9	75.6	35.2
47-48	19	Rheumatismus articulorum	72	1,164	1,236	1,050	1	108	1,159	77	33,468	19.81	.02	906.0	.8	93.2	28.8
7	20	Scarlatina	......	18	18	16	1	1	18	......	707	.31	.02	888.9	55.6	55.6	39.0
49	21	Scorbutus	......	2	2	2	......	......	2	......	31	.03	......	1,000.0	......	......	15.5
36 a to d	22	Syphilis	214	1,996	2,210	1,828	2	208	2,038	172	70,398	33.98	.03	897.0	1.0	102.0	35.3
75 d	23	Trachoma[c]	5	49	54	39	......	10	49	5	1,047	.83	......	795.9	......	204.1	21.4
26-27	24	Tuberculosis pulmonum[d]	92	250	342	25	30	125	180	162	46,526	4.26	.50	138.9	166.7	694.4	185.6
28-35	25	Tuberculosis ceterorum organorum	6	27	33	17	4	8	29	4	2,669	.46	.07	586.2	137.9	275.9	99.0
1	26	Typhus abdominalis	37	280	317	241	20	14	275	42	16,995	4.77	.33	876.4	72.7	50.9	60.7
2	27	Typhus exanthematicus	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
36 e	28	Ulcus molle (incl. adenitis venerea)	162	1,961	2,123	1,905	......	87	1,992	131	41,639	33.39	......	956.3	......	43.7	22.8
5	29	Variola	3	20	23	20	3	......	23	......	632	.34	.05	869.6	130.4	......	31.6
76 a to e	30	Morbi auris	44	558	602	498	......	80	578	24	10,662	9.50	......	861.6	......	138.4	19.1

[a] Numbers to nomenclature used in 1904. [b] Malarial fever, intermittent only. [c] Includes chronic conjunctivitis. [d] Includes tuberculosis of lungs and larynx.

INTERNATIONAL TABLE VI.—*Movement of sick according to most important diseases*—Continued.

Numbers of national nomenclature.	Numbers of international nomenclature.	Diseases of the international nosological table.	Absolute numbers.									Proportionate numbers.					
			Remaining at close of year 1903.	Admitted in 1904.	Total remaining and admitted.	Disposed of in 1904.					Total days sick in 1904.	Per 1,000 of mean strength.		Per 1,000 disposed of.			Average days of treatment.
						Fit for duty.	Died.	Otherwise.	Total.	Remaining at close of 1904.		Admissions.	Deaths.	Fit for duty.	Died.	Otherwise.	
77–79	31	Morbi cordis [a]	17	268	285	155	15	95	265	20	9,613	4.56	.25	584.9	56.6	358.5	35.9
145 e to ll	32	Morbi cutis [b]	48	1,759	1,807	1 748	......	24	1,772	35	17,079	29.95	......	986.5	....	13.5	9.7
68	33	Morbi mentis [c]	14	99	113	12	1	88	101	12	5,761	1.69	.02	118.8	9.9	871.3	58.2
75 a to p	34	Morbi oculi	46	1,048	1,094	952	......	92	1,044	50	15,927	17.84	......	911.9	....	88.1	15.2
119–126 g	35	Morbi systemat. urin. et sexual (excl. venerie et syphilis)	58	1,196	1,254	1,120	9	75	1,204	50	20,076	20.36	.15	930.2	7.5	62.3	16.8

[a] Includes pericarditis and endocarditis.

[b] Includes all diseases of the skin proper.

[c] Includes insanity only.

INTERNATIONAL TABLE VII.—*Most important diseases, by arms of service.*

Nos. of national nomenclature.[a]	Nos. of international nomenclature.	Diseases of the international nosological table.	Absolute numbers—Admissions by arms of service.									Proportionate numbers—Admissions per 1,000 of mean strength.								
			Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Medical Corps.	Others.	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Medical Corps.	Others.
56 a and b	1	Alkoholismus acutus, including delirium tremens	581	178	532	32	41	11	22	63	38	24.94	15.17	42.62	9.43	37.61	16.08	24.72	20.26	10.99
90	2	Bronchitis acuta	1,186	544	780	184	67	24	29	72	205	50.91	46.35	62.48	54.21	61.47	35.09	32.58	23.15	59.32
12	3	Cholera Asiatica	1	...	...	...	...	...	...	...	...	.04	...	...	...	...	...	...	...	...
13	4	Cholera nostras	9	1	1	...	...	...	1	...	...	.39	.09	.08	...	...	...	1.12	...	...
9	5	Diphtheria et croup	2	2	2	2	...	1	...	2	...	.09	.17	.16	.59	...	1.46	...	.64	...
14 a and b	6	Dysenteria	808	240	76	26	67	...	19	71	14	34.68	20.45	6.09	7.66	61.46	...	21.35	22.83	4.05
18	7	Erysipelas	23	3	9	...	...	...	...	6	7	.99	.26	.72	...	...	...	...	1.93	2.03
4 a	8	Febris intermittens (malaria)[b]	1,694	1,272	408	148	117	16	31	126	138	72.71	108.38	32.68	43.61	107.34	23.39	38.20	40.52	39.93
3	9	Febris recurrens	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37 a to d	10	Gonorrhea	3,248	1,677	1,116	371	174	4	93	172	251	139.42	142.89	89.40	109.31	159.63	5.85	104.49	55.30	72.63
108 a and b	11	Hernia	96	63	46	20	8	4	2	15	59	4.12	5.37	3.68	5.89	7.34	5.85	2.25	4.82	17.07
10	12	Influenza	611	500	886	205	67	52	6	97	61	26.23	42.60	70.97	60.40	61.46	76.03	6.74	31.19	17.65
169	13	Insolatio (Hitzschlag, coup de chaleur)	13	7	5	...	1	...	...	1	...	.56	.60	.40	...	.92	...	...	.32	...
61 b	14	Meningitis cerebro-spinalis epidemica	7	4	...	...	...	...	...	...	1	.30	.34	...	...	...	...	...	...	.29
6	15	Morbilli	313	125	141	95	13	...	11	19	130	13.43	10.65	11.29	27.99	11.93	...	12.36	6.11	37.62
19	16	Parotitis epidemica	156	57	183	44	7	1	23	16	114	6.70	4.86	146.60	12.96	6.42	1.46	25.84	5.14	32.99
94	17	Pleuritis	60	49	43	13	5	...	3	10	9	2.58	4.18	3.44	3.83	4.59	...	3.37	3.22	2.60
93	18	Pneumonia crouposa sive lobaris	90	58	45	17	7	1	...	6	26	3.86	4.94	3.60	5.01	6.42	1.46	...	1.93	7.52
47-48	19	Rheumatismus articulorum	436	219	304	54	29	22	13	46	41	18.72	18.66	24.35	15.91	26.61	32.17	14.60	14.79	11.86
7	20	Scarlatina	14	...	2	...	...	...	...	1	1	.60	...	.16	...	...	...	...	.32	.29
49	21	Scorbutus	1	...	...	...	...	...	...	...	1	.04	...	...	...	...	...	...	...	.29
36 a to d	22	Syphilis	797	573	360	102	53	2	29	44	36	34.21	48.82	28.84	30.05	48.62	2.92	32.58	14.15	10.42
75 d	23	Trachoma[c]	18	8	11	3	3	...	1	2	3	.77	.68	.88	.88	2.75	...	1.12	.64	.87
26-27	24	Tuberculosis pulmonum[d]	97	48	45	8	7	4	5	28	8	4.16	4.09	3.60	2.36	6.42	5.85	5.62	9.00	2.31
28-35	25	Tuberculosis ceterorum organorum	13	7	4	...	...	...	1	2	...	.56	.60	.32	...	...	...	1.12	.64	...
1	26	Typhus abdominalis	97	60	54	20	10	2	6	18	13	4.16	5.11	4.33	5.89	9.17	2.92	6.74	5.79	3.76
2	27	Typhus exanthematicus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36 c	28	Ulcus molle (incl. adenitis venerea)	914	477	316	106	59	...	23	27	39	39.23	40.64	25.31	31.23	54.13	...	25.84	8.68	11.28

[a] Numbers to nomenclature used in 1904.

[b] Malarial fever intermittent only.

[c] Includes chronic conjunctivitis.

[d] Includes tuberculosis of lungs and larynx.

INTERNATIONAL TABLE VII.—*Most important diseases, by arms of service*—Continued.

Nos. of national nomenclature.	Nos. of international nomenclature.	Diseases of the international nosological table.	Absolute numbers—Admissions by arms of service.									Proportionate numbers—Admissions per 1,000 of mean strength.								
			Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Medical Corps.	Others.	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Medical Corps.	Others.
5	29	Variola	12	4	2	.....	.....	....	1	.....	1	0.52	0.34	0.16	....	....	....	1.12	....	0.29
76 a to e	30	Morbi auris	212	118	110	39	12	3	12	25	27	9.10	10.05	8.81	11.49	11.01	4.39	13.48	8.04	7.81
77-79	31	Morbi cordis[a]	54	44	31	3	4	....	2	3	127	2.32	3.75	2.48	.88	3.67	....	2.25	.96	36.75
145 c to ll	32	Morbi cutis[b]	671	436	399	88	59	12	15	22	57	28.80	37.15	31.96	25.93	54.13	17.54	16.85	7.07	16.49
68	33	Morbi mentis[c]	32	18	24	1	1	3	....	14	6	1.37	1.53	1.92	.29	.92	4.39	....	4.50	1.74
75 a to p	34	Morbi oculi	374	215	205	55	27	4	14	38	116	16.05	18.32	16.42	16.21	24.77	5.85	15.73	12.22	33.56
119-126 g	35	Morbi systemat. urin. et sexual (excl. venerie et syphilis)	455	274	237	79	27	9	16	53	46	19.53	23.34	18.99	23.28	24.77	13.16	17.98	17.04	13.31

[a] Includes pericarditis and endocarditis.

[b] Includes all diseases of the skin proper.

[c] Includes insanity only.

INTERNATIONAL TABLE VIII.—*Most important diseases, by months.*

Nos. of national nomenclature.[a]	Nos. international nomenclature.	Diseases of the international nosological table.	Admissions by months.											
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
56 a and b	1	Alkoholismus acutus, including delirium tremens	142	96	131	114	116	115	127	116	142	141	112	146
90	2	Bronchitis acuta	441	421	409	325	196	158	132	156	166	186	203	298
12	3	Cholera Asiatica	....	....	....	1	....	....	....	....	....	....	....	....
13	4	Cholera nostras	1	....	....	....	3	3	1	3	....	1	....	....
9	5	Diphtheria et croup	1	2	3	....	....	....	....	....	....	2	....	3
14 a and b	6	Dysenteria	120	84	80	104	111	110	148	151	143	116	74	80
18	7	Erysipelas	9	8	6	10	3	2	3	1	....	....	2	4
4 a	8	Febris intermittens (malaria)[b]	262	291	363	343	390	322	330	390	377	331	298	256
3	9	Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....
37 a to d	10	Gonorrhœa	575	535	572	535	588	625	711	604	582	603	616	560
108 a and b	11	Hernia	22	18	29	36	30	27	29	29	20	30	20	23
10	12	Influenza	332	749	656	358	90	28	15	29	18	22	44	114
169	13	Insolatio (Hitzschlag, coup de chaleur)	....	3	5	3	2	5	2	4	2	1	....	....
61 b	14	Meningitis cerebro spinalis epidemica	1	....	1	3	1	3	1	....	1	1	....	....
6	15	Morbilli	51	140	290	178	88	52	27	3	2	2	2	12
19	16	Parotitis epidemica	55	57	84	67	116	106	78	13	6	4	5	10
94	17	Pleuritis	20	21	19	15	19	17	20	16	12	8	13	12
93	18	Pneumonia crouposa sive lobaris	28	47	43	34	14	11	7	6	15	11	15	19
47 48	19	Rheumatismus articulorum	116	119	126	125	122	116	77	89	70	65	70	69
7	20	Scarlatina	2	8	4	4	....	....	....	....	....	....	....	....
49	21	Scorbutus	....	....	....	1	1	....	....	....	....	....	....	....
36 a to d	22	Syphilis	177	139	180	172	156	171	180	158	155	189	170	149
75 d	23	Trachoma[c]	2	4	6	4	3	5	7	3	2	4	5	4
26 27	24	Tuberculosis pulmonum[d]	26	19	19	22	19	23	21	28	22	26	12	13
28 35	25	Tuberculosis ceterorum organorum	4	3	1	4	3	1	1	4	1	2	2	1
1	26	Typhus abdominalis	24	16	16	21	13	21	30	30	36	34	19	20
2	27	Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....	....
36 e	28	Ulcus molle (incl. adenitis venerea)	170	198	161	140	162	147	139	164	160	187	176	157
5	29	Variola	4	1	8	1	1	....	....	2	1	....	2	....
76 a to e	30	Morbi auris	45	56	77	52	42	43	35	35	41	43	42	47
77 79	31	Morbi cordis[e]	18	11	22	27	25	21	32	29	19	18	18	28
145 e to ll	32	Morbi cutis[f]	174	97	133	135	159	184	172	164	153	134	132	122
68	33	Morbi mentis[g]	14	8	9	8	14	7	5	9	13	6	4	2
75 a to p	34	Morbi oculi	81	89	92	112	105	82	87	65	83	83	83	86
119 126 g	35	Morbi systemat. urin. et sexual (excl. venerici et syphilis)	91	82	94	86	110	106	123	100	90	109	106	99

[a] Numbers to nomenclature used in 1904.
[b] Malarial fever, intermittent only.
[c] Includes chronic conjunctivitis.
[d] Includes tuberculosis of lungs and larynx.
[e] Includes pericarditis and endocarditis.
[f] Includes all diseases of the skin proper.
[g] Includes insanity only.

INTERNATIONAL TABLE IX.—*Deaths by rank, by length of service, and by age.*

Cause of death.		Total number of deaths (enlisted men).		Deaths by rank and length of service.				Deaths by age.					
		Absolute number.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and beyond.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Deaths from sickness	Soldiers present with troops	180	2.99	44	45	10	81	2	73	36	24	14	31
	Soldiers absent from troops	53	.88	7	16	6	24	1	25	11	8	2	6
Accidental deaths	Soldiers present with troops	145	2.41	34	24	16	71	3	59	46	15	12	10
	Soldiers absent from troops	1	.02	......	......	......	1	....	......	....	....	1	....
Suicides	Soldiers present with troops	27	.45	12	3	2	10	....	6	5	5	7	4
	Soldiers absent from troops	......	......	......	......	......	......	....	......	....	....	....	....
Grand total		406	6.75	97	88	34	187	6	163	98	52	36	51

INTERNATIONAL TABLE X.—*Discharges from the Army for physical disability, temporary or permanent, by rank, by length of service, and by age.*

Cause of discharge.	Total discharges (enlisted men).		Rank and length of service.				Age.					
	Absolute number.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and beyond.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Physical disability existent prior to enlistment	536	8.91	5	498	21	12	5	425	80	25	1	....
Physical disability incident to service	578	9.61	75	116	83	304	7	254	157	79	39	42
Physical disability not incident to service	263	4.37	16	98	37	112	3	173	67	12	3	5
Grand total	1,377	22.90	96	712	141	428	15	852	304	116	43	47

REPORT

OF THE

SURGEON-GENERAL OF THE ARMY

TO THE

SECRETARY OF WAR

FOR THE

FISCAL YEAR ENDING JUNE 30, 1906.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1906.

REPORT

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SURGEON-GENERAL OF THE ARMY

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FISCAL YEAR ENDING JUNE 30, 1906.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1906.

LETTER OF SUBMITTAL.

War Department,
Office of the Surgeon-General,
Washington, August 24, 1906.

Sir: I have the honor to submit herewith a report upon the work of the Medical Department of the Army, beginning with a financial statement for the fiscal year ending June 30, 1906, and including a study of the health and sanitary conditions of the Army for the calendar year 1905.

Very respectfully,

R. M. O'Reilly,
Surgeon-General, U. S. Army.

Hon. William H. Taft,
Secretary of War.

TABLE OF CONTENTS.

Page.

- Financial statement 9
- Health and sanitary condition of the whole Army, American troops, white and colored 13
  - Sickness and mortality 14
  - Discharges for disability 19
  - Influence of rank 19
  - Influence of arm of service 21
  - Comparison with foreign armies 21
  - Gunshot and other wounds in action 27
  - Surgical operations 28
  - Ultimate results of operations 29
  - Spinal anesthesia, special report 29
  - Recruiting 30
- Health of troops in the United States, continental, exclusive of Alaska 38
  - Sickness and mortality 38
  - Prevalence of special diseases 40
    - Typhoid fever 40
    - Undetermined fevers 43
    - Malarial fevers 45
    - Yellow fever 45
    - Measles 45
    - Smallpox 45
    - Dysentery 45
    - Tick fever 47
    - Epidemic cerebrospinal meningitis 47
    - Tuberculosis 47
    - Venereal diseases 49
    - Alcoholism 51
    - Insanity 51
    - Pneumonia 51
    - Diarrhea and enteritis 55
    - Hepatic abscess 55
  - Influence of station 55
  - Influence of age and length of service 61
  - Influence of season 63
  - Influence of race 63
  - Sanitation 64
    - Department of the East 66
    - Department of Texas 67
    - Department of the Lakes 69
    - Department of California 69
    - Department of Dakota 69
    - Department of the Colorado 70
    - Department of the Missouri 71
    - Department of the Gulf 71
    - Department of the Columbia, exclusive of Alaska 72
- Health of troops in Alaska 72
  - Sickness and mortality 72
  - Influence of station 74
  - Causes of deaths 75
  - Invaliding home 75
  - Sickness and mortality, special diseases 75

Page.

Health of troops in Porto Rico 76
  Sickness and mortality 76
  Influence of season 77
  Relative prevalence of special diseases among Porto Rican and Filipino troops 78
  Recruiting 78
Health of troops in Hawaii 78
  Sickness and mortality 78
  Influence of season 79
Health of troops in China 79
  Sickness and mortality 80
  Influence of season 80
  Sanitation 81
Health of troops in the Philippine Islands 81
  American troops 81
    Sickness and mortality 81
    External causes 81
    Deaths 81
    Prevalence of special diseases 82
      Typhoid fever 82
      Undetermined fevers 82
      Malarial fevers 86
      Smallpox 86
      Asiatic cholera 86
      Dysentery 86
      Diarrhea and enteritis 88
      Beriberi 88
      Dengue 88
      Malta fever 88
      Trichinosis 88
      Venereal diseases 88
      Tuberculosis 88
      Alcoholism 88
      Insanity 88
      Filariasis 88
    Prevalence of sickness by departments, islands, and posts 88
    Influence of season 95
    Influence of age and length of service 97
    Invaliding home 97
  Filipino troops 99
    Sickness and mortality 99
    Deaths 101
    Discharges for disability 101
    Influence of season 102
    Killed and wounded in action 102
    Surgical operations 103
    Recruiting 104
    Sanitation 107
      Department of Luzon 107
      Department of Visayas 108
      Department of Mindanao 108
  Prevalence of diseases by races 109
Health of troops on transports 110
Medical officers 110
  Army medical school 113
Medal of honor, presentation of 113
Contract surgeons 114
Contract dental surgeons 114
Hospital Corps 115
Nurse corps (female) 119

The general hospitals:

  U. S. Army General Hospital, Washington Barracks, D. C 120
  Army and Navy General Hospital, Hot Springs, Ark 120
  U. S. Army General Hospital, Fort Bayard, N. Mex 120
  U. S. Army General Hospital, Presidio of San Francisco, Cal 122
Providence Hospital, Washington, D. C 123

Page.
Hospital construction and repair 123
Medical and hospital supplies 125
The Army Medical Museum 127
Library of the Surgeon-General's Office 129
Artificial limbs and apparatus 129
Appliances and trusses 130
Remarks and recommendations 130
  Anemia commission 131
  Army and Navy Joint Board 131
  Relief work in San Francisco, Cal 131
  Explosion on the U. S. S. Bennington 133
  Medical observers with the Russian and Japanese armies 133
Discharges for disability, table of 134
Surgical operations, table of 136
Statistical tables 146
International tables 171

REPORT

OF

THE SURGEON-GENERAL.

FINANCIAL STATEMENT, 1906.[a]

Medical and hospital department, 1906.

Appropriated by act approved March 2, 1905		$600,000.00
Refundments on account of supplies transferred:		
To Quartermaster's Department	$88.60	
To States and Territories for use of organized militia	3,961.87	
To Isthmian Canal Commission	13,783.01	
To Navy	2,443.54	
To Marine Corps	1,604.04	
To Immigration Service	1,135.42	
Refundments on account of supplies sold:		
To States for use of militia	1,813.73	
To civil government of the Philippine Islands	3,992.07	
To civil hospitals in the Philippine Islands	4,065.76	
Other refundments during the year	299.50	
		33,187.54
Total to be accounted for		633,187.54
Disbursed during the year:		
Expenses of medical supply depots	$659.29	
Medical supplies	318,174.55	
Medical attendance and medicines (except at recruiting depots)	9,170.38	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	18,781.79	
Pay of nurses	2,123.45	
Pay of other employees	141,640.29	
Washing of hospital linen	21,498.98	
Expressage	319.29	
Notary fees	63.56	
Miscellaneous	33.13	
		512,464.71
Transferred by Treasury settlement to adjust appropriations		87.50
Balances on hand June 30, 1906:		
In United States Treasury and in transit thereto	$44,379.38	
In hands of disbursing officers		
New York City	17,493.33	
Washington, D. C	10,805.17	
St. Louis, Mo	34,845.14	
San Francisco, Cal	7,558.26	
Manila, P. I	5,554.05	
		120,635.33
Total accounted for		633,187.54

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[a] The disbursements in this statement include settlements with public creditors made by the accounting officers of the Treasury and charged by them to these appropriations.

Medical and hospital department, 1905.

Balance on hand July 1, 1905, act of April 23, 1904		$137,965.57
Refundments on account of supplies transferred:		
To the Isthmian Canal Commission	$17,315.88	
To States and Territories for use of organized militia	861.70	
Refundment on account of supplies sold:		
To the civil government of the Philippine Islands	10.73	
Other refundments during the year (including transfers by Treasury settlements to adjust appropriations, $363.85)	822.04	
		19,010.35
Total to be accounted for		156,975.92
Disbursed during the year:		
Expenses of medical supply depots	$147.63	
Medical supplies	140,343.58	
Medical attendance and medicines (except at recruiting stations)	2,732.24	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	4,700.10	
Pay of nurses	163.00	
Pay of other employees	2,420.81	
Washing of hospital linen	2,080.50	
Expressage	5.55	
Notary fees	23.50	
Miscellaneous	3.00	
		152,619.91
Transferred by Treasury settlement to adjust appropriations		3,839.67
Balance on hand June 30, 1906, in United States Treasury		516.34
Total accounted for		156,975.92

Medical and hospital department, 1904.

Balance on hand July 1, 1905, acts of March 2, 1903, and April 27, 1904		$5,680.15
Refundments during the year (including transfer by Treasury settlement to adjust appropriations, $3,839.67)		3,840.05
Total to be accounted for		9,520.20
Disbursed during the year:		
Medical supplies	$521.55	
Medical attendance and medicines (not at recruiting stations)	373.76	
		895.31
Transferred by Treasury settlements to adjust appropriations		276.35
Carried to surplus fund		8,348.54
Total accounted for		9,520.20

Medical and hospital department, 1903, and prior years.

Refunded during the year	$10.93
Carried to surplus fund	10.93

Medical and hospital department, certified claims.

Appropriated by act approved February 27, 1906	$18.70
Disbursed during the year	18.70

Report of army board on origin and spread of typhoid fever, 1903–4.

Balance on hand July 1, 1905, act of March 3, 1903	$19,654.01
Disbursed during the year	19,107.45
Balance on hand in United States Treasury June 30, 1906	546.56

Artificial limbs, 1906.

Appropriated by act approved March 3, 1905		$425,000.00
Disbursed during the year		397,966.83
Balance June 30, 1906:		
In United States Treasury	$24,176.17	
In hands of disbursing officer, Washington, D. C	2,857.00	
		27,033.17

Artificial limbs, 1905.

Balance on hand July 1, 1905, act of April 28, 1904	$12,177.50
Disbursed during the year	3,684.59
Balance on hand in United States Treasury June 30, 1906	8,492.91

Artificial limbs, 1904.

Balance on hand July 1, 1905, act of March 3, 1903	$6,703.01
Disbursed during the year	211.29
Carried to surplus fund	6,491.72
Total accounted for	6,703.01

Appliances for disabled soldiers, 1906.

Appropriated by act approved March 3, 1905		$2,000.00
Disbursed during the year		1,256.69
Balance June 30, 1906:		
In United States Treasury	$600.00	
In hands of disbursing officer, Washington, D. C	143.31	
		743.31

Appliances for disabled soldiers, 1905.

Balance on hand July 1, 1905, act of April 28, 1904	$839.45
Disbursed during the year	81.85
Balance on hand in United States Treasury June 30, 1906	757.60

Appliances for disabled soldiers, 1904.

Balance on hand July 1, 1905, act of March 3, 1903	$711.18
Carried to surplus fund	711.18

Army Medical Museum, 1906.

Appropriated by act approved March 2, 1905		$3,000.00
Disbursed during the year		2,092.74
Balance June 30, 1906:		
In United States Treasury	$500.00	
In hands of disbursing officer, Washington, D. C	407.26	
		907.26

Army Medical Museum, 1905.

Balance on hand July 1, 1905, act of April 23, 1904	$668.22
Refundment during the year	.40
Total to be accounted for	668.62
Disbursed during the year	387.28
Balance on hand in United States Treasury June 30, 1906	281.34
Total accounted for	668.62

Army Medical Museum, 1904.

Balance on hand July 1, 1905, act of March 2, 1903	$198.92
Carried to surplus fund	198.92

Library, Surgeon-General's Office, 1906.

Appropriated by act approved March 2, 1905		$9,000.00
Disbursed during the year		5,596.29
Balance June 30, 1906:		
In United States Treasury	$2,000.00	
In hands of disbursing officer, Washington, D. C.	1,403.71	
		3,403.71

Library, Surgeon-General's Office, 1905.

Balance on hand July 1, 1905, act of April 23, 1904	$3,679.95
Disbursed during the year	3,355.76
Balance on hand in United States Treasury June 30, 1906	324.19

Library, Surgeon-General's Office, 1904.

Balance on hand July 1, 1905, act of March 2, 1903	$65.17
Disbursed during the year	3.80
Carried to surplus fund	61.37
Total accounted for	65.17

Furnishing trusses to disabled soldiers (sections 1176, 1177, and 1178, Revised Statutes, and act of March 3, 1879).

Balance on hand July 1, 1905	$330.55
Drawn during the year	6,500.00
Total to be accounted for	6,830.55
Disbursed during the year	5,089.02
Balance June 30, 1906, in hands of disbursing officer, Washington, D. C.	1,741.53
Total accounted for	6,830.55

Relief of sufferers from earthquake and conflagration on the Pacific coast (joint resolutions of April 19, 21, and 24, 1906).

Allotted to the Medical Department of the Army by the Secretary of War:		
April 24, 1906		$100,000.00
April 28, 1906		300,000.00
Total to be accounted for		400,000.00
Disbursed during the year:		
Medical supplies	$36,185.24	
Physicians	3,379.75	
Nurses	2,656.00	
Pharmacist	82.00	
Interpreter	95.00	
Cooks and bakers	508.50	
Clerical and administrative services	2,051.24	
Laborers, skilled and unskilled	7,789.38	
Hire of horse and wagon	52.00	
		52,799.11
Transferred to the Quartermaster's Department		97,200.89
Transferred to the general account under this appropriation on the books of the Secretary of War and dropt from the medical allotment		150,000.00
Balance June 30, 1906, on books of the Secretary of War to the credit of the medical allotment		100,000.00
Total accounted for		400,000.00

General summary of all appropriations.

Balances on hand July 1, 1905	$188, 673. 68
Appropriated	1, 045, 518. 70
Allotted to the Medical Department from the relief fund	400, 000. 00
Refunded during the year	51, 845. 75
Total to be accounted for	1, 686, 038. 13
Disbursed	1, 157, 631. 33
Transferred from the relief fund out of the administrative control of the Surgeon-General and dropt from his books accordingly	247, 200. 89
Carried to surplus fund	15, 822. 66
Balances on hand June 30, 1906	265, 383. 25
Total accounted for	1, 686, 038. 13

THE ARMY.

As during the previous year, troops were stationed in the United States proper, the Philippine Islands, Alaska, China, and Hawaii, while native troops continued to do service in Porto Rico and the Philippines. When the "Army" is referred to, the American Army proper, white and colored troops, is meant, the native troops—Porto Rican and Filipino—having been separately considered.

As in many diseases, notably the venereal, the same man is often admitted several times on account of the same case of illness, the total number of admissions is necessarily considerably greater than the actual number of cases. The extent of this error (total 7.32 per cent) is shown in the following table, in which, however, only those diseases are shown in which the difference between admissions and cases was ten or more:

Disease.	Admissions and cases (men) compared.			
	Admissions.	Cases (men).	Excess of admissions over cases.	Percentage of admissions deducted to show cases.
Malarial fevers	5, 056	4, 404	652	12. 90
Influenza	1, 696	1, 638	58	3. 42
Dysentery	964	872	92	9. 54
Dengue	472	454	18	3. 81
Vaccinia	2, 229	2, 166	63	2. 83
Tuberculosis (all)	280	268	12	4. 29
Syphilis	1, 954	1, 629	325	16. 63
Chancroid	1, 894	1, 785	109	5. 76
Gonorrhea and others venereal	7, 551	6, 600	951	12. 59
Articular rheumatism:				
Acute	570	499	71	12. 46
Subacute and chronic	373	331	42	11. 26
Alcoholism	1, 687	1, 435	252	14. 94
Poisoning, chronic	50	40	10	20. 00
Epilepsy	133	101	32	24. 06
Neuralgia	493	448	45	9. 13
Neurasthenia	90	77	13	14. 44
Conjunctivitis	465	428	37	7. 96
Errors of refraction	358	345	13	3. 63
Diseases of middle and internal ear	421	381	40	9. 50
Organic diseases of heart	211	197	14	6. 64
Varicocele	251	236	15	5. 98
Hemorrhoids	521	491	30	5. 76
Adenitis, nonvenereal	447	402	45	10. 07
Functional heart disease	191	173	18	9. 42
Coryza	1, 229	1, 167	62	5. 04
Acute bronchitis	2, 925	2, 744	181	6. 19
Chronic bronchitis	169	154	15	8. 88
Pleurisy	164	153	11	6. 71
Asthma	98	63	35	35. 71
Diseases of the teeth, gums, and alveoli	601	572	29	4. 83
Tonsillitis	3, 044	2, 892	152	4. 99
Dyspepsia	1, 910	1, 814	96	5. 03

Disease.	Admissions and cases (men) compared.			
	Admissions.	Cases (men).	Excess of admissions over cases.	Percentage of admissions deducted to show cases.
Gastritis	815	788	27	3.31
Diarrhea	3,355	3,174	181	5.39
Enteritis	480	459	21	4.38
Colic, intestinal	462	449	13	2.81
Constipation	1,004	968	36	3.59
Hernia	325	294	31	9.54
Appendicitis	230	211	19	8.26
Furuncle	1,850	1,606	244	13.19
Acute abscess, phlegmon	900	844	56	6.22
Corns and warts	289	261	28	9.69
Ingrowing nails	224	213	11	4.91
Dermatitis from poisonous plants	247	233	14	5.67
Scabies	423	407	16	3.78
Dhobie itch	184	174	10	5.43
Arthritis	73	61	12	16.44
Synovitis	156	145	11	7.05
Muscular rheumatism and myalgia	1,632	1,508	124	7.60
Fevers, undetermined causation	696	672	24	3.45
Debility following operation and disease	165	154	11	6.67
Dislocations	212	199	13	6.13
Sprains	3,331	3,098	233	6.99
Strain, muscular	866	821	45	5.20
Abrasions and blisters	900	864	36	4.00
Contusions	3,111	2,913	198	6.36
Wounds, other than gunshot	3,049	2,987	62	2.03
Secondary results of injuries	315	282	33	10.48
Diseases and injuries, except as shown in detail	9,951	9,599	352	3.54
Total for disease	60,225	55,469	4,756	7.90
Total for injury	13,517	12,874	643	4.76
Grand total	73,742	68,343	5,399	7.32

HEALTH OF THE ARMY.

The mean enlisted strength of the Army, American troops, white and colored, for the year 1905, as reported on the monthly sick reports of the medical department, was 56,901, and on returns to The Military Secretary's Office, 58,556.

As the former represents the strength of the commands from which the sick returns were made, it was used in calculating all ratios except those for deaths and discharges. As all deaths and discharges were reported even if absent from a command, the total strength as obtained from The Military Secretary was used in calculating ratios pertaining to those subjects.

The total number of admissions to sick report was 73,742, equal to an admission rate of 1,295.97, compared with 1,354.89 for the previous year and 1,903.31 for the sexennial period 1898 to 1903.

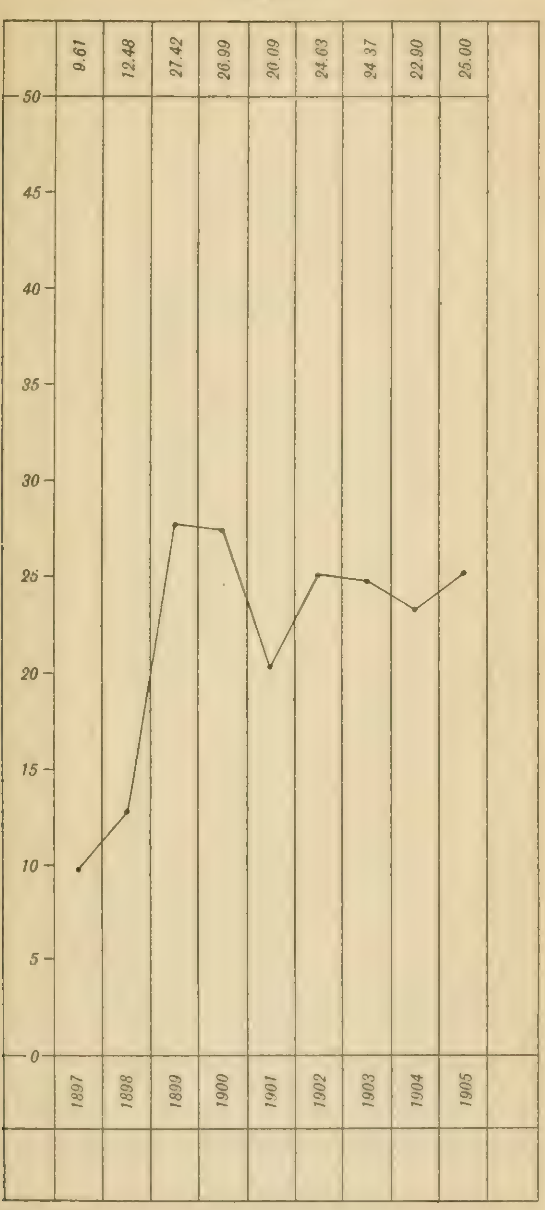
There were 368 deaths from all causes, equivalent to 6.28 per thousand, compared with 6.75 for the previous year and 16 for the six-year period 1898 to 1903.

The discharges for disability were 1,464 and the rate 25.00, as compared with 22.90 for the preceding year and 23.10 for the sexennial period 1898 to 1903. The increase in the discharge for disability figure is easily accounted for by the new system of recruiting; many men are now discharged after enlistment who would formerly have been rejected before enlistment.

The constantly noneffective rate was 48.93, compared with 49.80 for the preceding year.

These figures are very satisfactory and indicate a steady and progressive improvement in the health of the Army.

This chart shows clearly the increase in the discharge rate since 1897, when it was phenomenally low.



The accompanying chart shows the rapid increase in the admission rates for venereal diseases since 1897.

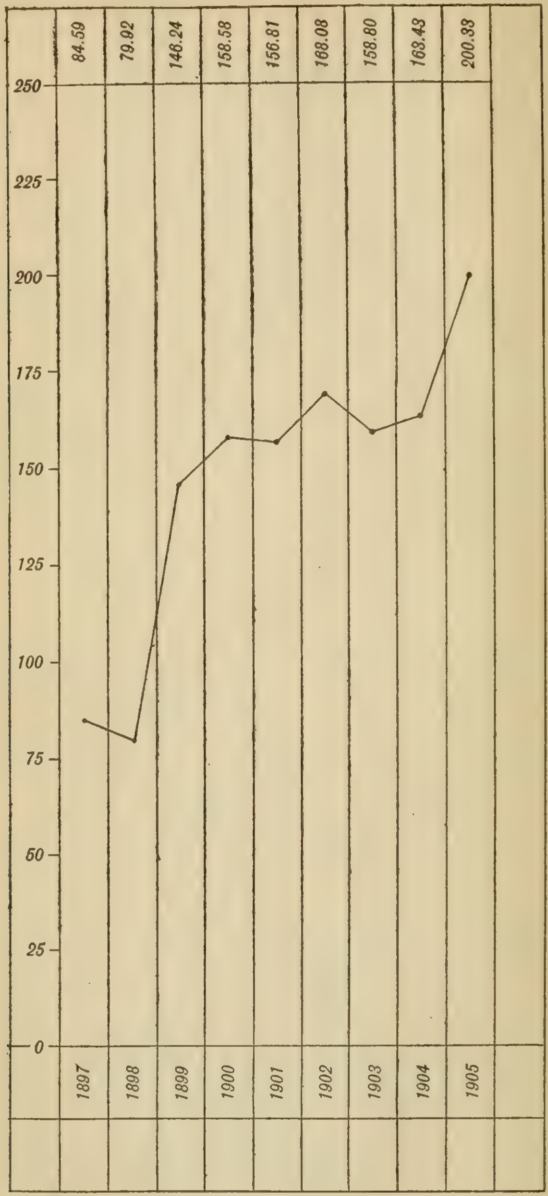


Chart showing the relative admission ratios per thousand of mean strength of certain special diseases in the United States proper, Philippine Islands, and Alaska.

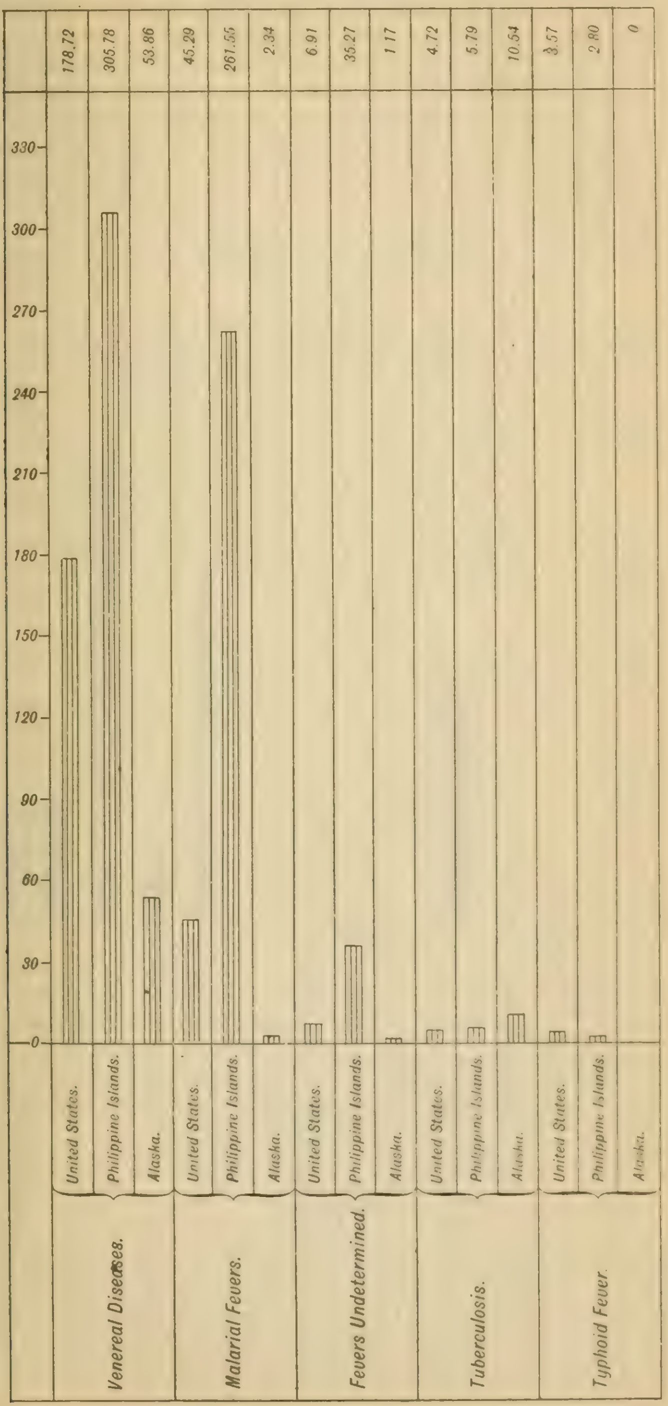
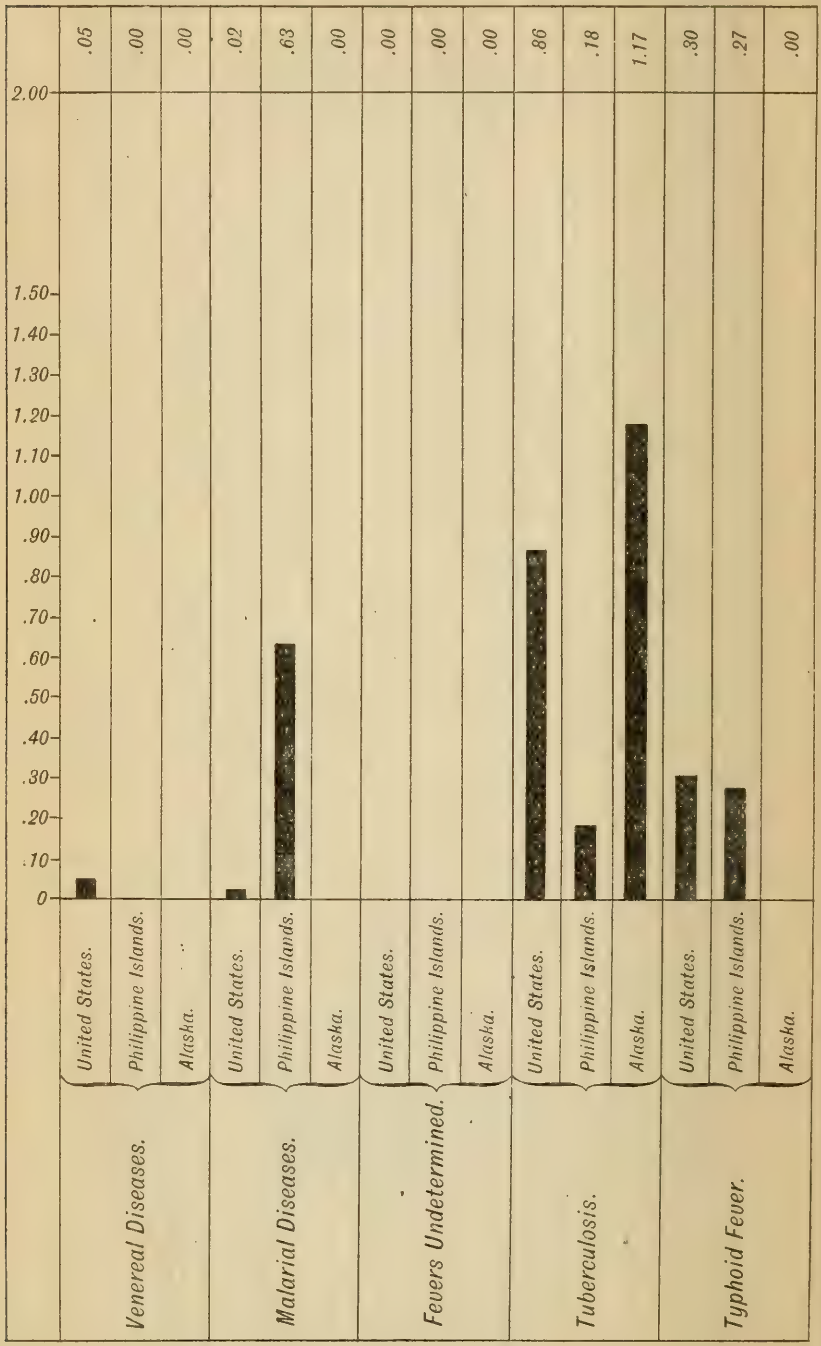


Chart showing the relative mortality ratios per thousand of mean strength of certain special diseases in the United States proper, Philippine Islands, and Alaska.



Venereal diseases were again by far the most important affecting the efficiency of the Army during the year. These diseases were first with admission, discharge, and noneffective rates of 200.34, 3.41, and 12.47, respectively, causing 19 per cent of all admissions, 15 per cent of all discharges, and 30 per cent of all noneffectiveness for disease. There were constantly on sick report for this class of diseases 710 men, equal to the loss for the entire year of the service of about eleven full companies of infantry. The increase noted in all the rates, except that for discharge, for venereal diseases indicates a most unsatisfactory condition.

After venereal diseases in order of admission were malarial fevers, which showed a slight increased admission rate of 88.85 and a decreased noneffective rate of 1.85, compared with the figures for the previous year.

The class of diseases which showed a most decided improvement were the diarrheal affections, with admission and noneffective rates of 84.67 and 2.87, compared with 108.36 and 3.87, respectively, the corresponding rates for the previous year.

Alcoholism was next in order, with an admission rate of 29.65. An increase in the admission, death, and noneffective rates compared with the previous year from this cause was noted.

As a cause of death tuberculosis led with a rate of 0.68, a slight increase compared with the previous year; pneumonia was second, rate 0.32, compared with 0.65 for 1904; typhoid fever dropt to 0.29 and diarrheal diseases to 0.20 respectively, compared with 0.33 and 0.30, the corresponding rates for last year.

As a cause of discharge for disability venereal diseases led with a rate of 3.41 for the year, tuberculosis was second with a rate of 2.69, defects of vision third, rate 2.29, and organic diseases of the heart fourth, with 1.83 discharged per thousand of strength.

By reference to the table of causes of discharge for disability, page 134, it will be seen that of the 1,464 men discharged for disability over 60 per cent were for disabilities not incurred in line of duty, and of these 72 per cent were contracted before enlistment. The principal causes of discharge, with the number for each cause, were: Venereal diseases 199, tuberculosis 157, defective vision 134, organic heart diseases 107, insanity 78, and hernia 68, these six diseases or disease groups alone causing over half of the discharges from all causes.

There were 210 admissions for gunshot, with 55 deaths; and 3,049 admissions for wounds other than gunshot, with 17 deaths. Sixteen men were killed in action and 44 wounded; of the killed 13 were by gunshot; of the wounded 28 were by gunshot. There were 37 deaths from drowning, 10 per cent of the total deaths from all causes, a very slight decrease compared with the proportion of soldiers drowned last year. Thirty-one suicides and 20 homicides were noted, compared with 27 and 10, respectively, the corresponding figures for 1904. There were 2 admissions for snake bite during the year.

OFFICERS.[a]

The mean strength of officers was 3,505, as obtained from the returns of the medical department, and 3,739 from The Military Secretary.

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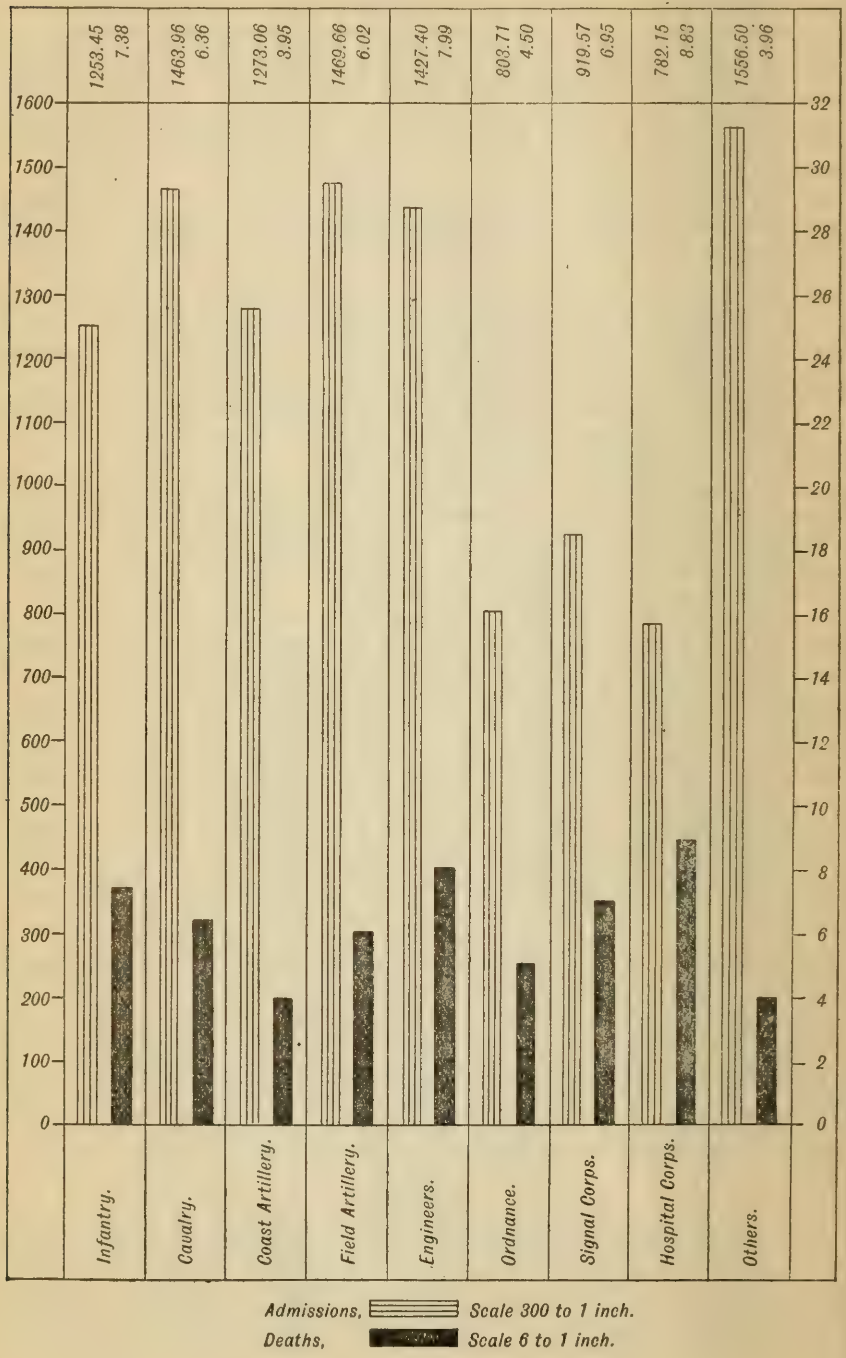
[a] American officers of Philippine scouts and the Porto Rican regiment are included in the following statements.

Chart showing the relative admission and death ratios per thousand of mean strength by arms of service.



There were 2,178 admissions, 23 deaths, and 102.98 constantly noneffective from all causes, equal to proportions of 621.40, 6.15, and 29.38, respectively, compared with 1,311.18, 5.98, and 49.77 for white enlisted men and 665.30, 7.08, and 31.25 for officers, in 1904. All rates were therefore better than for last year, and all except the death rate better than for white enlisted men.

For disease the highest admission rates were as follows: Influenza, 57.35; malaria, 47.94; diarrhea and enteritis, 42.51, and bronchitis, 40.80. The highest death rates: Chronic nephritis, 0.80; cancer, 0.54, and appendicitis, 0.54. The highest noneffective rates: Tuberculosis, 2.93; dysentery, 1.97; malaria, 1.34, and appendicitis, 1.15. There were six deaths from wounds and three from drowning.

THE INFLUENCE OF ARM OF SERVICE.

(See tables, pp. 172 and 176.)

In these comparisons the ordnance department is excluded, owing to their small number and the special character of their services.

The admission rate was highest in the field artillery and lowest in the hospital corps, while the death rate was highest in the hospital corps and lowest in the coast artillery.

By special diseases the infantry had the highest rates for venereal diseases and the hospital corps the lowest; the coast artillery had the highest rate for alcoholism and the lowest for dysentery, malaria, and typhoid fever; the field artillery had the lowest rate for alcoholism and the highest for malaria; the engineers had the highest rates for dysentery and typhoid fever and the lowest for tuberculosis; the hospital corps had the highest rates for tuberculosis and hernia.

The infantry had 10 men killed in action and 28 wounded, giving ratios of 0.44 and 1.27 per thousand, respectively; the cavalry had 5 killed and 11 wounded, ratios 0.42 and 0.96; engineers, 1 killed and 1 wounded; hospital corps, 2 wounded, and field artillery, 2 wounded. In addition to the above, there were 4 deaths in the infantry and 1 in the cavalry from wounds received in action.

COMPARISON WITH FOREIGN ARMIES.

In the following tables a comparison is made of all the data available from the annexes to the annual reports of the medical departments of the respective countries containing the international tables agreed upon. Unfortunately, the figures are not really comparable. In the United States the admissions include all soldiers who are excused from any part of their military duties, while this is not the case in any other country; that portion of the army serving outside the geographical limits of the United States is also included, while this is not the case with any other country except Great Britain. Again, the recruiting conditions vary greatly in each country; the United States and Great Britain rely on voluntary enlistment, while the other countries have conscription; Germany has a much larger number of men to select from than France, and there are other differences of equal importance. The strength is differently estimated in different countries. Some have a low death rate because their sick are promptly discharged or retired and die out of service instead of on sick report. Deaths and discharges considered together would form one of the most reliable bases of comparison, and international agreement has provided for their publication in the annexes referred to; but the British tables are the only foreign tables thus far received which contain data with regard to discharge.

It will be noted that the highest admission rate, 1,321, was attained in the Dutch army; the next highest in the American Army, 1,295.97, and the lowest, 348, in the Russian army.

The highest death rate, 7.13, was noted in the British army, the American Army having the next highest rate, 6.28, and the Prussian army the lowest, 2.

Another factor of importance in judging of the relative healthfulness of different armies is the average duration of each case of sickness; according to this standard the American Army excelled all others except the Dutch and Bavarian; the average duration of each case in the American Army was less than one-half that of the British and little more than one-half that of the Spanish armies.

With regard to special diseases the admission rates in the American Army were better than in most other armies in the following instances: Bronchitis, pleurisy, pneumonia, tuberculosis, erysipelas, sunstroke, relapsing fever, scarlatina, and trachoma; they were much higher than in any other army in the following: Alcoholism, dysentery, gonorrhea, syphilis (British army excepted). The only diseases in which the rates were better in the American than in the Prussian army were pleurisy, pneumonia, erysipelas, scarlatina, and trachoma.

While the admission rate for dysentery in the British army was less than half that of the American Army, the death rate was greater in the former; the death rates for malaria in the British, Dutch, Russian, and Spanish armies were also greater than in the American Army, altho the corresponding admission rates (except the British) were much lower.

showing a comparison with foreign armies of the relative admission and death ratios per thousand of mean strength.

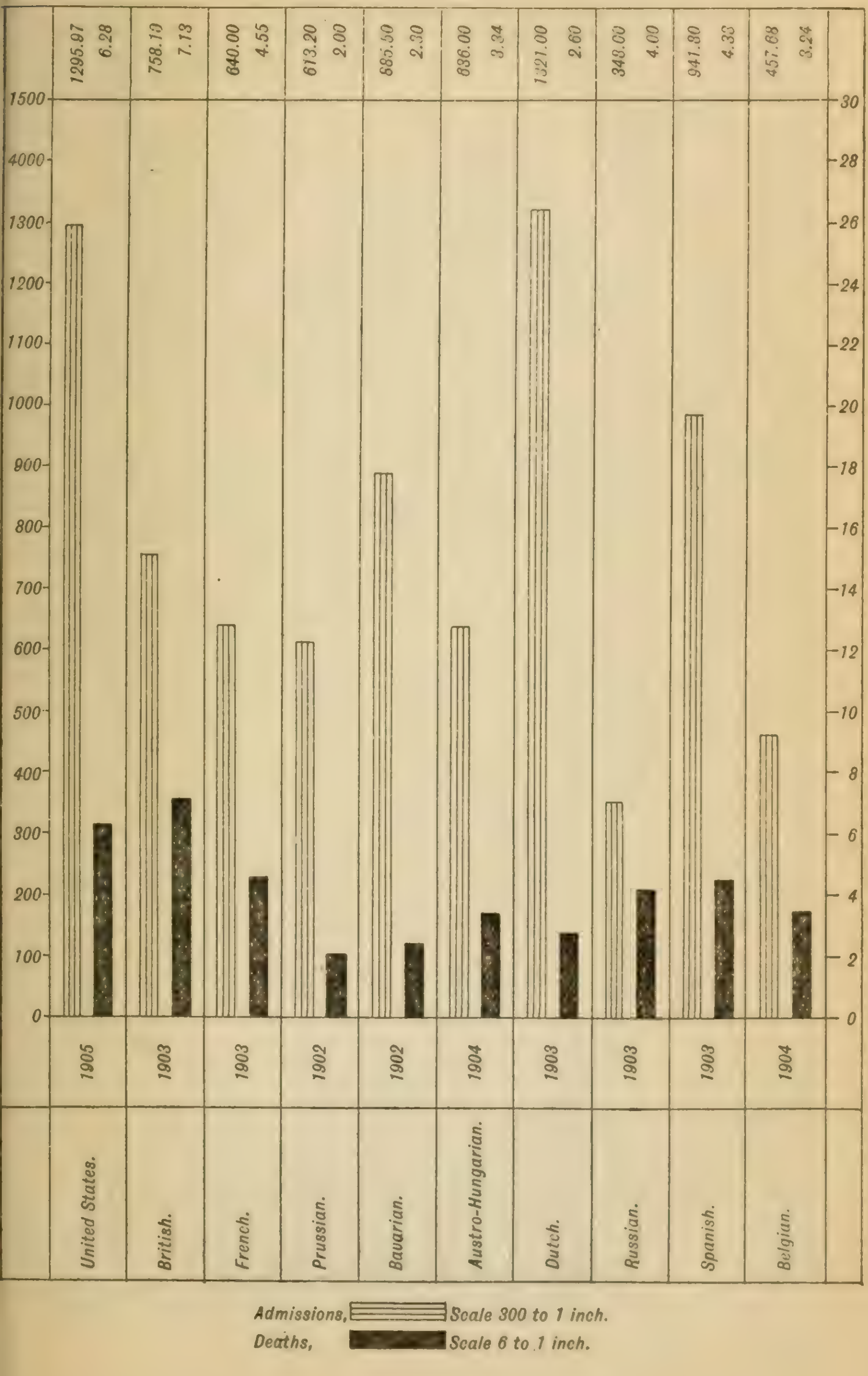


TABLE I.—*A comparison of the admission and death rates of the United States Army for certain special diseases with those of foreign armies.*

	Admission rates per 1,000 of mean strength.												Death rates per 1,000 of mean strength.											
	American troops, enlisted, year 1905.			British, year 1903.	French, year 1903.	Prussian, year 1902.	Bavarian, year 1902.	Austro-Hungarian, year 1904.	Dutch, year 1903.	Russian, year 1903.	Spanish, year 1903.	Belgian, year 1904.	American troops, enlisted, year 1905.			British, year 1903.	French, year 1903.	Prussian, year 1902.	Bavarian, year 1902.	Austro-Hungarian, year 1904.	Dutch, year 1903.	Russian, year 1903.	Spanish, year 1903.	Belgian, year 1904.
	White.	Colored.	Total.										White.	Colored.	Total.									
Alkoholismus acutus, incl. del. trems	28.89	9.01	27.73	2.1	*a* 0.18	0.09	0.26	(*b*)	0.24	0.1	0.05	0.15	0.18	.....	0.17	0.06	.....	.....	.....	(*b*)	.....	0.001	.....	.....
Bronchitis acuta	51.89	43.57	51.40	*a* 20.4	*a* 74.6	48.0	87.4	57.9	80.4	19.7	27.18	34.97	.02	.....	.02	.04	0.03	.....	.....	0.14	.....	.02	0.09	.....
Cholera Asiatica	.17	.....	.16	.3	.....	.....	.....	.....	.....	.....	.....	.....	.04	.....	.03	.22	.....	.....	.....	.....	.....	.....	.....	.....
Cholera nostras	.35	.30	.35	.....	.....	.....	.....	.....	.....	.01	.....	.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.001	.....	.....
Diphtheria et croup	.62	.30	.60	.2	2.1	.45	.20	.....	.03	.1	.03	.05	.....	.....	.....	.02	.05	0.01	0.02	.....	.....	.001	.....	.....
Dysenteria	17.78	3.60	16.93	8.3	2.3	.03	.....	.5	.105	.9	.27	.....	.22	.....	.20	.28	.03	.....	.....	.01	.....	.08	.01	.....
Erysipelas	.86	.....	.81	1.0	1.6	1.1	1.2	2.3	1.7	2.5	4.27	.84	.....	.....	.....	.03	.02	.01	.02	.01	.....	.06	.05	.....
Febris intermittens (malaria)	84.88	16.52	80.89	84.4	1.3	.34	.09	.9	7.4	35.0	14.34	.22	.02	.....	.02	.10	.....	.....	.....	.....	0.03	.05	.03	0.02
Febris recurrens	.....	.....	.....	3.6	(*b*)	.....	.....	(*b*)	.....	.03	.36	.....	.....	.....	.....	.07	(*b*)	.....	.....	(*b*)	.....	.....	.01	.....
Gonorrhea	133.42	97.05	131.30	76.4	19.2	12.0	13.5	31.8	20.1	21.7	23.64	22.14	.02	.....	.02	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hernia	5.90	2.70	5.71	3.0	4.6	2.0	1.2	5.3	5.6	2.3	3.01	5.25	.....	.....	.....	.....	.....	.....	.....	.01	.....	.001	.....	.....
Influenza	30.22	23.14	29.80	12.6	25.1	5.5	12.3	2.3	19.7	17.7	26.37	14.04	.02	.....	.02	.01	.25	.01	.02	.04	.03	.04	.22	.....
Insolatio (Hitzschlag, c. de chaleur)	.17	.30	.18	1.6	.24	.20	.45	.1	.07	.03	.03	.42	.....	.....	.....	.23	.....	.02	.02	.....	.....	.....	.....	.....
Meningitis cerebrospinalis epidem.	.19	.....	.18	.1	.09	.03	.11	(*b*)	.03	.01	.03	.07	.13	.....	.12	.07	.05	.01	.06	(*b*)	.03	.01	.02	.05
Morbilli	5.41	2.10	5.22	.6	10.6	1.0	.60	.8	.81	.2	6.16	.42	.02	.....	.02	.01	.09	.....	.....	.01	.....	.003	.08	.....
Parotitis epidemica	11.87	11.72	11.86	.4	19.9	1.4	.97	1.8	.71	2.6	4.34	.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pleuritis	2.87	3.00	2.88	(*b*)	8.6	3.8	3.6	5.0	(*b*)	9.0	2.34	3.59	.....	.....	.....	(*b*)	.07	.05	.09	.16	(*b*)	.18	.06	.10
Pneumonia crouposa sive lobaris	2.63	3.91	2.71	*c* 4.4	2.7	6.6	9.6	4.6	4.9	5.6	3.68	2.53	.29	.90	.32	.58	.19	.22	.35	.20	.31	.40	.15	.22
Rheumatismus articulorum	15.90	27.34	16.57	16.8	17.1	7.7	11.5	10.3	11.5	5.8	16.74	14.29	.....	.....	.....	.03	.04	.02	.03	.01	.....	.01	.03	.02
Scarlatina	.15	.....	.14	1.9	4.1	.73	.60	.3	1.3	.1	.43	.32	.....	.....	.....	.03	.10	.04	.....	.01	.....	.004	.02	.....
Scorbutus	.04	.....	.04	.....	.....	.....	.....	.2	.....	.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.01	.....	.....
Syphilis	34.89	25.54	34.34	84.7	5.9	4.0	4.1	19.3	5.5	12.8	12.17	7.35	.....	.30	.02	.07	.....	.....	.....	.....	.....	.01	.....	.....
Trachoma	.41	.....	.39	.....	.05	.46	.26	4.7	.....	6.5	.01	.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuberculosis pulmonum	4.13	5.71	4.22	2.6	5.3	1.6	1.8	1.0	6.03	3.7	8.55	5.67	.43	2.70	.56	.31	.40	.17	.17	.22	.60	.76	.72	.57
Tuberculosis ceterorum organorum	.71	.60	.71	.3	2.1	.37	.34	2.0	.95	.....	.36	.57	.11	.30	.12	.06	.35	.09	.17	.05	.03	.....	.....	.17
Typhus abdominalis	3.55	.90	3.39	11.5	5.1	.70	.15	1.6	.74	5.3	2.60	3.10	.29	.30	.29	1.84	.72	.08	.03	.24	.17	.76	.57	.40
Typhus exanthematicus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.3	.03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.01	.01	.....
Ulcus molle (incl. adenitis venerea)	33.38	31.85	33.29	(*b*)	1.9	2.3	2.1	10.5	(*b*)	6.0	27.56	.94	.....	.....	.....	(*b*)	.....	.....	.....	.....	(*b*)	.....	.....	.....
Variola	.11	1.50	.19	.3	.15	.....	.....	.....	.....	.1	1.15	.02	.....	.....	.....	.03	.....	.....	.....	.....	.....	.01	.02	.....
Morbi auris	9.87	2.10	9.42	11.5	6.6	11.7	17.9	13.3	19.8	12.2	4.52	16.24	.....	.....	.....	.01	.02	.01	.03	.02	.03	.07	.....	.....
Morbi cordis	4.07	.90	3.88	11.0	3.3	3.0	4.5	1.9	2.5	2.5	4.79	5.64	.09	.....	.09	.41	.04	.03	.06	.03	.03	.05	.13	.05
Morbi cutis	26.55	5.10	25.29	47.4	19.8	14.1	14.4	141.5	170.1	44.5	50.50	21.87	.....	.....	.....	.....	.....	.....	.....	.06	.03	.03	.05	.....
Morbi mentis	1.62	1.50	1.62	1.6	.42	.68	.88	.2	1.6	.7	.73	1.78	.....	.....	.....	.02	.02	.....	.02	.....	.....	.01	.....	.....
Morbi oculi	21.28	13.52	20.83	11.7	6.3	14.2	20.8	26.5	34.7	16.4	11.61	18.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morbi systemat. urin. et sexual *d*	16.35	15.02	16.27	16.0	9.2	5.2	6.6	11.1	10.7	5.5	6.96	6.74	.09	.60	.12	.16	.07	.04	.09	.06	.07	.07	.05	.05

a All cases (acute not tabulated separately). *b* Disease not reported on table. *c* All pneumonia, lobar not separated. *d* Exclusive venerie et syphilis.

TABLE II.—*Total movement of sick for the United States Army compared with that of foreign armies.*

	United States Army—Year 1905.						British, year 1903.		French, year 1903.		Prussian, year 1902.	
	American troops—Enlisted men.											
	Total white and colored.		White.		Colored.							
	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.
Mean strength:												
Officers and enlisted men	....	....	....	....	....	....	....	....	[a]564,099	....	....	....
Enlisted men	[b]56,901	....	[b]53,573	....	[b]3,328	....	242,182	....	[c]493,583	....	537,677	....
Admitted to sick report	73,742	53,315	70,244	51,030	3,498	2,285	....	183,598	....	326,139	329,699	135,477
Ratio per 1,000 of mean strength	1,295.97	936.98	1,311.18	952.53	1,051.08	686.60	....	[d]758.1	....	640.0	613.2	252.0
Disposed of, all causes	[e]73,917	....	[e]70,401	....	[e]3,516	....	....	....	....	....	328,956	....
Ratio per 1,000 of mean strength	1,299.04	....	1,314.13	....	1,056.49	....	....	....	....	....	611.8	....
Died, all causes	368	....	330	....	38	....	1,881	....	2,561	....	1,080	....
Ratio per 1,000 of mean strength	6.28	....	5.98	....	11.40	....	[f]7.13	....	[g]4.55	....	2.0	....
Ratio per 1,000 of all disposed of	4.98	....	4.69	....	10.81	....	....	....	....	....	3.3	....
Died of disease	206	....	182	....	24	....	1,558	....	[h]2,161	....	690	....
Ratio per 1,000 of mean strength	3.52	....	3.30	....	7.20	....	[f]5.91	....	3.83	....	1.3	....
Died of injury	162	....	148	....	14	....	323	....	400	....	390	....
Ratio per 1,000 of mean strength	2.77	....	2.68	....	4.20	....	[f]1.22	....	[g].72	....	.7	....
Died on sick report	237	....	210	....	27	....	....	....	....	....	[i]653	....
Ratio per 1,000 of mean strength	4.05	....	3.80	....	8.10	....	....	....	....	....	1.2	....
Ratio per 1,000 of all disposed of	3.21	....	2.98	....	7.68	....	....	....	....	....	2.0	....
Died not on sick report	131	....	120	....	11	....	....	....	....	....	350	....
Accidental deaths	86	....	77	....	9	....	248	....	272	....	143	....
Suicides	31	....	30	....	1	....	75	....	128	....	247	....
Returned to duty	70,382	....	67,059	....	3,323	....	....	....	....	....	308,324	....
Ratio per 1,000 of all disposed of	952.18	....	952.53	....	945.11	....	....	....	....	....	937.3	....
Otherwise disposed of	3,167	....	3,012	....	155	....	....	....	....	....	19,979	....
Ratio per 1,000 of all disposed of	42.85	....	42.78	....	44.08	....	....	....	....	....	60.7	....
Total days lost on account of sickness	1,016,230	841,488	973,258	808,264	42,972	33,224	....	4,108,571	....	5,300,274	4,836,829	....
Constantly noneffective on account of sickness	2,784.19	2,305.85	2,666.46	2,214.42	117.73	91.03	....	11,256.36	....	14,521.30	13,252.00	....
Ratio per 1,000 of mean strength	48.93	40.52	49.77	41.33	35.38	27.35	....	[k]47.29	....	[g]25.74	24.65	....
Average days' treatment:												
For each soldier of mean strength	17.86	14.79	18.17	15.09	12.91	9.98	....	[e]21.73	....	9.9	9.0	....
For each case of sickness	13.78	15.78	13.85	15.84	12.25	11.54	....	[e]28.77	....	16.2	14.2	....

---

[a] Total effective, including officers.

[b] Death rates are calculated on the average strength present and absent; total, 58,556; white, 55,223; colored, 3,333.

[c] Present effective, including officers.

[d] Calculated on strength, excluding men detached on furlough, etc. (21,706).

[e] Includes cases remaining from previous year.

[f] Calculated on strength, including men detached.

[g] Calculated on total effective strength.

[h] Includes the deaths from disease at home among officers and men on leave or on leave for convalescence.

[i] Suicides and accidents treated, 77 not included, added makes 730; plus 350 "not on sick report," gives total 1,080.

[k] Calculations exclude men detached and troops on board ship.

TABLE II.—*Total movement of sick for the United States Army compared with that of foreign armies*—Continued.

	Bavarian, year 1902.		Austro-Hungarian, year 1904.		Dutch, year 1903.		Russian, year 1903.		Spanish, year 1903.		Belgian, year 1904.	
	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.
Mean strength:												
Officers and enlisted men												
Enlisted men	65,102		291,975		28,357		1,082,485		76,253		40,382	
Admitted to sick report	57,646	15,784	185,696	97,021	37,497	20,013	376,704	340,179	74,867	28,296		18,482
Ratio per 1,000 of mean strength	885.5	242.4	636.0	332.3	1,321.0	676.0	348.0	314.3	981.8	371.0		457.68
Disposed of, all causes	57,497		184,779		38,003		375,945		74,745			18,165
Ratio per 1,000 of mean strength	883.18		632.86		1,340.0		347.30		980.22			449.83
Died, all causes	151		977		75		4,337		330		131	88
Ratio per 1,000 of mean strength	2.3		3.34		2.6		4.0		4.33		3.24	2.18
Ratio per 1,000 of all disposed of	2.6		5.3		2.0		11.5		4.42			4.84
Died of disease	112		621		66		3,893		300		102	83
Ratio per 1,000 of mean strength	1.7		2.13		2.2		3.60		3.93		2.53	2.06
Died of injury	39		356		9		444		30		29	5
Ratio per 1,000 of mean strength	.6		1.21		.3		.4		.39		.71	.12
Died on sick report	*a* 106											
Ratio per 1,000 of mean strength	1.6											
Ratio per 1,000 of all disposed of	1.8											
Died not on sick report	37											
Accidental deaths	17		79		5		295		15		24	
Suicides	22		277		4		149		15		5	
Returned to duty	54,087		154,715		35,476		340,234		69,646			15,645
Ratio per 1,000 of all disposed of	940.7		837.3		932.0		905.0		931.78			861.27
Otherwise disposed of	3,304		29,443		2,461		31,818		4,799			2,432
Ratio per 1,000 of all disposed of	57.5		159.3		65.3		84.6		64.21			133.88
Total days lost on account of sickness	700,975		3,691,445			276,826	10,639,243		803,871			344,517
Constantly noneffective on account of sickness	1,920.48		10,085.92			758.43	29,148.61		2,202.39			941.30
Ratio per 1,000 of mean strength	29.50		34.54			26.75	26.93		28.88			23.31
Average days' treatment:												
For each soldier of mean strength	10.8		12.6			9.7	9.8		10.5			8.53
For each case of sickness	11.9		19.1			13.7	28.3		26.8			18.64

a Suicides and accidents treated, 8 not included; added makes 114; plus 37 "not on sick report," gives total 151.

KILLED AND WOUNDED IN ACTION.

Sixteen enlisted men were killed in action and 44 wounded, of whom 5 died as a result of their wounds. Of the killed, 13 were by gunshot and 3 by edged weapons; of the wounded, 28 were by gunshot and 15 by edged weapons. Three officers were wounded by gunshot, of whom 1 died, and 1 was wounded by a spear, losing his eye.

Further information is contained in the following tables:

American troops—Killed in action by gunshot.

Character and location of wound.	Nature of missile.				Arm of service.		
	.45-caliber ball.	.30-caliber ball.	Caliber unknown.	Total.	Infantry.	Cavalry.	Total.
Skull, fracture	2	....	....	2	....	2	2
Spine, fracture	....	1	....	[a] 1	1	....	1
Thorax, penetrating	1	1	4	6	5	1	6
Abdomen, penetrating	3	....	....	3	1	2	3
Thigh, middle third	1	....	....	[b] 1	1	....	1
Total	7	2	4	13	8	5	13

[a] Cause of death, fracture of cervical spine, with laceration of cord.
[b] Cause of death, hemorrhage from divided femoral artery.

American troops—Wounds received in action by gunshot.

Character and location of wound.	Nature of missile.				Disposition.				Arm of service.					
	.45-caliber ball.	.30-caliber ball.	Caliber unknown.	Total.	Duty.	Died.	Remaining.	Total.	Infantry.	Cavalry.	Field Artillery.	Engineer Corps.	Medical Department.	Total.
Face, flesh	1	....	....	1	1	....	....	1	....	....	....	....	1	1
Neck	1	1	....	2	1	....	1	2	1	....	1	....	....	2
Thorax:														
Nonpenetrating	1	1	....	2	2	....	....	2	....	2	....	....	....	2
Penetrating	....	1	....	1	....	....	1	1	1	....	....	....	....	1
Abdomen, penetrating	....	1	1	2	....	2	....	2	1	1	....	....	....	2
Shoulder, flesh	....	1	....	1	1	....	....	1	1	....	....	....	....	1
Arm:														
Flesh	2	1	....	3	3	....	....	3	1	2	....	....	....	3
Fracture	1	....	....	1	1	....	....	1	....	1	....	....	....	1
Forearm, flesh	1	....	....	1	1	....	....	1	....	....	1	....	....	1
Metacarpus, fracture	1	....	....	1	1	....	....	1	1	....	....	....	....	1
Thigh, flesh	3	4	1	8	7	....	1	8	7	1	....	....	....	8
Kneejoint	1	....	....	1	....	....	1	1	1	....	....	....	....	1
Leg, flesh	2	....	....	2	2	....	....	2	1	....	....	1	....	2
Foot, flesh	1	....	....	1	1	....	....	1	1	....	....	....	....	1
Metatarsus, fracture	1	....	....	1	....	....	1	1	1	....	....	....	....	1
Total	16	10	2	28	21	2	5	28	17	7	2	1	1	28

American troops—Killed in action by wounds other than gunshot.

Character and location of wound.	Nature of weapon.				Arm of service.		
	Dagger.	Barong.	Kris.	Total.	Infantry.	Engineer Corps.	Total.
Neck	1	1	....	2	1	1	2
Thorax, penetrating	....	....	1	1	1	....	1
Total	1	1	1	3	2	1	3

American troops—Wounds received in action other than gunshot.

Character and location of wound.	Nature of weapon.						Disposition.				Arm of service.			
	Bolo.	Dagger.	Barong.	Kris.	Spear.	Total.	Duty.	Died.	Certificate of disability.	Total.	Infantry.	Cavalry.	Medical Department.	Total.
Skull, fracture	1					1		1		1	1			1
Neck		2				2	2			2	2			2
Thorax, penetrating		1				1	1			1	1			1
Abdomen, penetrating		1				1		1		1	1			1
Hip, flesh	1		1			2	2			2	2			2
Arm:														
Flesh				1		1	1			1		1		1
Fracture					1	1		*a* 1		1	1			1
Forearm:														
Flesh				1		1	1			1		1		1
Fracture	1					1			1	1			1	1
Hand, flesh	1			1	1	3	3			3	1	2		3
Thigh, flesh	1				1	2	2			2	2			2
Total	5	4	1	3	3	16	12	3	1	16	11	4	1	16

a Died of hypostatic congestion of the lungs.

American officers—Wounds received in action by gunshot.

Character and location of wound.	Nature of missile.		Disposition.			Arm of service.		
	.45-caliber ball.	Total.	Duty.	Died.	Total.	Infantry.	Cavalry.	Total.
Abdomen, penetrating	1	1		1	1		1	1
Shoulder, flesh	1	1	1		1	1		1
Hand, flesh	1	1	1		1		1	1
Total	3	3	2	1	3	1	2	3

American officers—Wounds received in action other than gunshot.

Character and location of wound.	Nature of weapon—spear.	Disposition—duty.	Arm of service—Infantry.
Face, flesh	*a* 1	1	1

a Destruction of eye.

SURGICAL OPERATIONS.

On page 136 will be found a table of the major surgical operations performed by medical officers on the officers and enlisted men in service. It will be seen that there was a total of 3,004 operations, of which 2,882 were successful and 50 partially successful. There were 42 deaths, of which 9 occurred in 120 operations for appendicitis and 6 in 15 operations for abscess of the liver. Chloroform was administered in 713 operations, with one fatality from the anesthetic, and ether 806 times, with no fatalities reported. Spinal anesthesia was resorted to in 60 cases. There were 179 operations for hernia, with no death and only one failure.

ULTIMATE RESULTS OF OPERATIONS.

As a result of the circular issued in September, 1904, in order to determine the permanent value of operative procedures, especially those for the radical cure of hernia, medical officers have reported during the past year the following cases as having come under their observation:

Recurrence of hernia after operation for radical cure		6
One month after operation	1	
Six months after operation	2	
Two years after operation	1	
Four years after operation, double recurrence	1	
Five years after operation	1	
Hernia after operation for appendicitis		1

SPINAL ANESTHESIA.

Capt. Henry D. Thomason, assistant surgeon, U. S. Army, surgeon at Whipple Barracks, Ariz., has reported a series of some 60 operations, major and minor, done under tropacocaine spinal anesthesia. As a result of his experience in this series of cases he makes the following remarks:

> The important feature of the method is that the cerebro-spinal fluid serves as the solvent to the tropacocaine, thereby reducing to a minimum the danger of infection, and avoiding increased intracranial and spinal pressure, as results from the common practice of preparing the solution external to the body and by means of a foreign solvent, thereby producing severe and prolonged headaches, nausea, and not infrequently alarming toxic symptoms, which have done much to bring spinal analgesia into disrepute and condemnation.
>
> The experience of the writer in a limited number of cases leads to the following conclusions:
>
> 1. That in all operations covering the field from umbilicus to toes tropacocaine spinal injection where proper technique is observed is a reliable and advantageous analgetic. That it can be utilized in a certain percentage of operations above the umbilicus.
>
> 2. Employed under proper technique it possesses distinct advantages over general anesthesia. It is, under proper technique, believed to be devoid of danger. Morton reports approximately 3,000 cases without a death or alarming symptom from its employment.
>
> 3. In weighing the chances and advisability of operation the depression and dangers attendant upon general anesthesia can be eliminated and the prognosis confined to the patient's resisting powers of the operation per se.
>
> 4. The patient is at all times, under its adminstration, in a normal mental condition, able to assist himself and to describe symptoms and conditions, a distinct advantage over the utter helplessness attendant upon general anesthesia.
>
> 5. The immense comfort and assistance to the operator who may dismiss anxiety of accidents and complications attendant upon general anesthetics despite their most careful and skilful administration.
>
> 6. There is no necessity for undue haste in performance of operation because of jeopardy from prolonged general anesthesia. Tropacocaine spinal analgesia usually continues a sufficiently long time for the performance of any ordinary operation, and there is no objection to repeating the injection if called for.
>
> 7. The cooperation of the patient secured by this method is of distinct advantage in operation—e. g., that for the radical cure of hernia the patient at will, upon direction of the operator, by straining can protrude the gut, thus serving as a guide to locate, isolate, and dissect the sac.
>
> 8. Operations can be safely performed upon a class of cases in whom the employment of general anesthesia would positively contraindicate.
>
> 9. The absence of vomiting and retching and its attendant disadvantages frequently accompanying general anesthesia.
>
> 10. It has been observed that tropacocaine destroys the sensation of pain only. The patient is sensible to touch of the hand, fingers, and manipulation of all varieties.

He is also sensible to drafts of hot or cold air. The special senses are in no way impaired. Pain alone is destroyed in the analgesic region.

11. The fact that for more than fifty years people have been educated that there must be absolute unconsciousness, with every sense and faculty occluded during a surgical operation, has its influence in determining accurate results as to sensation. This in connection with the physical temperament of the individual must be taken into consideration. In several instances in the writer's experience the patient when asked "Do you feel this?" has answered "Yes;" and unquestionably he did feel manipulation as plainly as tho analgesia was nil; when asked "Does this hurt?" reply "No." It has also been observed that when a subject watched an operation there was occasionally complaint; covering the eyes would remove all sense of pain.

12. Tho the writer has no personal experience, it is believed that its employment in obstetrics would be of distinct advantage. Numerous observers and authorities have condemned spinal analgesia upon experience (and some without experience) based upon the use of cocaine, beta eucaine, etc., prepared in solution without the body, in contradistinction to the method used by the writer, and as a result have obtained unpleasant sequences, such as nausea, vomiting, and persistent headaches probably due to increased intracranial and spinal pressure from the introduction of a foreign solvent.

So far as can be determined by the writer, the unpleasant after effects accompanying spinal analgesia produced by the method described is about 3 per cent in all patients, and in this 3 per cent the headache and nausea is very much modified, in no instance assuming an alarming form, and stands in brilliant comparison to the frequent after effects, dangers, and complications incident to general anesthesia.

It has occurred to the writer that tropacocaine spinal analgesia applied to military surgery, especially in field service, offers the following advantages:

1. Obviating the necessity for the storage and transportation of so large quantities of general anesthetics.
2. It is much more economical than general anesthetics.
3. The immense saving of time and attention in administration.
4. The saving in operative personnel; dispensing with the necessity of an anesthetizer.
5. The saving in number of attendants for individual patients; after operation patient does not require attention as after general anesthetic.
6. Saving in number of bearers; under spinal analgesia patient frequently able to assist himself.
7. Its employment on the field of battle, at dressing stations, etc., would be the means of relieving much pain, as well as prevention of shock from suffering, and at the same time render the wounded man better able to assist himself in reaching the field hospital.

RECRUITING.

On September 30, 1905, the employment of civilian physicians as examiners of recruits at stations of the general recruiting service was discontinued, and since that time the medical examination of such recruits has been made at the recruit depots or military stations to which the recruits are first sent.

Since the change there has been little complaint of the unsatisfactory character of assigned recruits, and it is believed that the new system will prove much more satisfactory than the old one.

The regulations regarding the physical requirements for recruits have also been modified in two important respects, which it is believed will result in advantage to the service.

Varicocele is no longer disqualifying, unless it is painful or so large as to interfere with locomotion. It is thought that this change from an arbitrary size limit will result in saving to the service many desirable recruits.

The requirement as to serviceable teeth has been raised and more clearly defined. Instead of four opposing double teeth, the presence of six serviceable molars is now necessary.

The following table shows the number of applicants for enlistment, white and colored, examined physically during the year 1905, with the number accepted, rejected on primary examination, rejected at depots before assignment and declined, with ratios per thousand:

TABLE A.

	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Examined	45,995	1,000.00	3,526	1,000.00	49,521	1.000.00
Accepted [a]	30,374	660.38	2,573	729.72	32,947	665.31
Rejected on primary examination	11,711	254.61	799	226.60	12,510	252.62
Rejected on secondary examination [a]	255	5.54	1	.28	256	5.17
Declined	3,910	85.01	154	43.68	4,064	82.07

[a] Two hundred and fifty-six accepted recruits were rejected at depots before assignment and discharged for disabilities existing before enlistment.

The total number of recruits examined was about a thousand less than in 1904. The proportion finally accepted was also somewhat less among the white troops, while an increase is noted among the colored candidates accepted.

In the next table is shown the nativity of recruits. The proportion of foreign-born white recruits was slightly larger than last year, 146.12 per 1,000, as against 140.32 for 1904. The relative number from different foreign countries was about as usual.

TABLE B.

	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States (continental)	25,936	853.88	2,569	998.45	28,505	865.18
Germany	1,201	39.54			1,201	36.45
Ireland	970	31.94			970	29.44
England	476	15.67			476	14.45
Canada	370	12.18			370	11.23
Scandinavia	304	10.01			304	9.23
Austria	230	7.57			230	6.98
Russia	211	6.95			211	6.40
Denmark	110	3.62			110	3.34
Scotland	108	3.56			108	3.28
Switzerland	82	2.70			82	2.49
Italy	81	2.67			81	2.46
Hungary	45	1.48			45	1.36
Holland	41	1.35			41	1.24
France	39	1.28			39	1.18
Spain	13	.43			13	.39
Cuba	9	.30			9	.27
Porto Rico	5	.16			5	.15
Others	143	4.71	4	1.55	147	4.46
Total foreign	4,438	146.12	4	1.55	4,442	134.82
Grand total	30,374	1,000.00	2,573	1,000.00	32,947	1,000.00

The following tables have been carefully prepared and are exceedingly interesting as showing the state of physical development of the material of which our Army is composed.

The ages of all accepted recruits, white and colored, and the proportion at each age per 1,000 are shown in this statement:

TABLE C.

Ages.	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
18 years and under	643	21.17	16	6.22	659	20.00
19 years	591	19.46	20	7.77	611	18.54
20 years	399	13.13	14	5.44	413	12.54
21 years	4,530	149.14	192	74.62	4,722	143.33
22 years	4,025	132.52	201	78.12	4,226	128.28
23 years	2,397	78.91	156	60.63	2,553	77.49
24 years	2,309	76.02	152	59.07	2,461	74.69
25 years	2,285	75.23	195	75.79	2,480	75.26
26 years	1,649	54.30	197	76.57	1,846	56.03
27 years	1,571	51.72	237	92.10	1,808	54.89
28 years	1,614	53.14	215	83.56	1,829	55.51
29 years	1,239	40.79	191	74.23	1,430	43.40
30 years	936	30.82	96	37.31	1,032	31.32
31 years	830	27.32	107	41.58	937	28.44
32 years	737	24.26	70	27.21	807	24.49
33 years	634	20.87	66	25.65	700	21.25
34 years	560	18.44	52	20.21	612	18.58
35 years	527	17.35	47	18.27	574	17.42
36 years	392	12.91	47	18.27	439	13.32
37 years	366	12.05	39	15.16	405	12.29
38 years	247	8.13	32	12.44	279	8.47
39 years	291	9.58	30	11.66	321	9.74
40 and over	1,602	52.74	201	78.12	1,803	54.72
Total	30,374	1,000.00	2,573	1,000.00	32,947	1,000.00

The recruiting circular for 1905 reduced the minimum age for enlistment from 21 years to 18, and this resulted in the enlistment of 1,270 men under 20 years of age, as against 47 for 1904; nevertheless the total number of recruits enlisted of ages 24 years and under was considerably less than last year.

The series of tables which follow show separately for each race the heights of accepted recruits for the year and the proportion of each height per 1,000, also in absolute and proportional numbers the relation of height to age:

TABLE D.—*Relation of height to age.*

ABSOLUTE NUMBERS (WHITE TROOPS).

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
5 feet 1 inch and under	1	....	....	....	2	1	2	1	8	15
5 feet 2 inches	1	....	1	....	....	1	1	....	17	21
5 feet 3 inches	3	4	....	6	19	7	12	13	83	147
5 feet 4 inches	55	43	30	272	241	142	125	139	827	1,874
5 feet 5 inches	94	91	46	498	445	267	252	229	1,488	3,410
5 feet 6 inches	122	95	64	713	602	358	324	321	2,024	4,623
5 feet 7 inches	125	143	85	890	726	389	410	371	2,245	5,384
5 feet 8 inches	110	94	67	824	688	445	416	437	2,219	5,300
5 feet 9 inches	60	61	54	603	559	345	297	332	1,784	4,095
5 feet 10 inches	41	34	29	376	366	229	232	205	1,179	2,694
5 feet 11 inches	17	19	14	203	201	113	127	126	688	1,508
6 feet	7	4	5	87	112	61	70	69	372	787
6 feet 1 inch	1	2	4	58	45	28	22	26	177	363
6 feet 2 inches	3	1	....	....	19	11	19	16	84	153
Total	643	591	399	4,530	4,025	2,397	2,309	2,285	13,195	30,374

TABLE D.—*Relation of height to age*—Continued.

PROPORTIONAL NUMBERS (WHITE TROOPS).

Height	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
5 feet 1 inch and under	1.6				0.5	0.4	0.9	0.4	0.6	0.5
5 feet 2 inches	1.6		2.5			.4	.4		1.3	.7
5 feet 3 inches	4.7	6.7		1.3	4.7	2.9	5.2	5.7	[illegible]	4.8
5 feet 4 inches	85.5	72.8	75.2	60.1	59.9	59.2	64.2	60.8	62.7	61.7
5 feet 5 inches	146.2	[illegible]	[illegible]	109.9	[illegible]	111.4	109.1	100.2	112.8	112.3
5 feet 6 inches	189.7	[illegible]	160.4	157.4	149.6	149.4	[illegible]	140.5	153.4	152.2
5 feet 7 inches	194.4	242.0	[illegible]	196.5	[illegible]	[illegible]	177.6	162.4	170.1	177.3
5 feet 8 inches	171.1	159.1	167.9	181.9	170.9	[illegible]	180.2	191.3	[illegible]	174.5
5 feet 9 inches	93.3	[illegible]	[illegible]	133.1	128.9	[illegible]	128.6	[illegible]	135.2	134.8
5 feet 10 inches	68.4	57.5	72.7	[illegible]	90.9	[illegible]	100.5	89.7	89.3	88.7
5 feet 11 inches	26.4	[illegible]	35.1	44.8	49.9	47.1	55.0	[illegible]	[illegible]	49.7
6 feet	10.8	6.7	12.5	[illegible]	27.8	25.5	30.3	30.2	28.2	25.9
6 feet 1 inch	1.6	3.4	10.1	12.8	11.2	11.7	9.5	11.4	13.4	11.9
6 feet 2 inches	4.7	1.7			4.7	4.6	8.2	7.0	6.4	5.0
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE E.—*Relation of height to age.*

ABSOLUTE NUMBERS (COLORED TROOPS).

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
5 feet 1 inch and under						1			2	3
5 feet 2 inches									2	2
5 feet 3 inches					1	1	1		10	13
5 feet 4 inches	1	1	1	19	12	6	10	11	92	153
5 feet 5 inches		5	2	25	19	16	22	15	166	270
5 feet 6 inches	4	3	1	25	36	22	25	35	260	411
5 feet 7 inches	3	4	2	40	29	37	19	42	323	499
5 feet 8 inches	4	2	6	34	38	34	26	33	278	455
5 feet 9 inches	2	3	2	18	25	13	18	23	199	303
5 feet 10 inches	2	2		17	22	14	12	20	142	231
5 feet 11 inches				10	11	9	10	10	87	137
6 feet				2	5	3	2	3	41	56
6 feet 1 inch				1	2		3	1	18	25
6 feet 2 inches				1	1		4	2	7	15
Total	16	20	14	192	201	156	152	195	1,627	2,573

PROPORTIONAL NUMBERS (COLORED TROOPS).

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
5 feet 1 inch and under						6.4			1.2	1.2
5 feet 2 inches									1.2	.8
5 feet 3 inches					5.0	6.4	6.6		6.1	5.1
5 feet 4 inches	62.5	50.0	71.4	99.0	59.7	38.5	65.8	56.4	56.6	59.5
5 feet 5 inches		250.0	142.9	130.2	94.5	102.6	144.7	76.9	102.0	104.9
5 feet 6 inches	250.0	150.0	71.4	130.2	179.1	141.0	164.5	179.5	159.8	159.7
5 feet 7 inches	187.5	200.0	142.9	208.3	144.3	237.2	125.0	215.4	198.5	193.9
5 feet 8 inches	250.0	100.0	428.6	177.1	189.0	217.9	171.0	169.2	170.9	176.8
5 feet 9 inches	125.0	150.0	142.9	93.8	124.4	83.3	118.4	117.9	122.3	117.8
5 feet 10 inches	125.0	100.0		88.5	109.4	89.7	78.9	102.6	87.3	89.8
5 feet 11 inches				52.1	54.7	57.7	65.8	51.3	53.5	53.2
6 feet				10.4	24.9	19.2	13.2	15.4	25.2	21.8
6 feet 1 inch				5.2	10.0		19.7	5.1	11.1	9.7
6 feet 2 inches				5.2	5.0		26.3	10.3	4.3	5.8
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Forty-nine and five one-hundredths per cent of the white recruits were 5 feet 8 inches or over, and only 0.60 per cent under 5 feet 4 inches; the corresponding figures for colored recruits were 47.49 and 0.71 per cent.

The following tables show separately for each race the weights of accepted recruits and the proportion of each weight per 1,000; also the relation of weight to age in both absolute and proportional numbers:

TABLE F.—*Relation of weight to age.*

ABSOLUTE NUMBERS (WHITE TROOPS).

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
119 pounds and under	30	14	8	46	37	20	24	32	267	478
120 to 124 pounds	85	74	39	251	189	87	81	84	457	1,347
125 to 129 pounds	126	105	51	575	394	219	174	194	937	2,775
130 to 134 pounds	119	124	63	700	512	293	286	258	1,282	3,637
135 to 139 pounds	88	83	66	722	573	359	328	304	1,575	4,098
140 to 144 pounds	81	73	49	681	598	356	373	343	1,724	4,278
145 to 149 pounds	43	42	43	542	513	301	291	300	1,573	3,651
150 to 154 pounds	27	34	39	353	423	242	255	237	1,368	2,978
155 to 159 pounds	17	19	17	273	288	181	166	163	1,056	2,180
160 to 164 pounds	14	6	8	177	208	147	137	145	871	1,713
165 to 169 pounds	6	5	12	104	144	79	79	92	586	1,107
170 to 174 pounds	3	2	2	41	64	56	44	44	464	720
175 to 179 pounds	3	3	1	32	35	29	36	37	309	485
180 pounds and over	1	7	1	33	47	25	35	52	726	927
Total	643	591	399	4,530	4,025	2,397	2,309	2,285	13,195	30,374

PROPORTIONAL NUMBERS (WHITE TROOPS).

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
119 pounds and under	46.7	23.7	20.1	10.2	9.2	8.3	10.4	14.0	20.2	15.7
120 to 124 pounds	132.2	125.2	97.7	55.4	47.0	36.3	35.1	36.8	34.6	44.3
125 to 129 pounds	195.9	177.6	127.8	126.9	97.9	91.4	75.4	84.9	71.0	91.4
130 to 134 pounds	185.1	209.8	157.9	154.5	127.2	122.2	123.9	112.9	97.2	119.7
135 to 139 pounds	136.8	140.4	165.4	159.4	142.3	149.8	142.0	133.0	119.4	134.9
140 to 144 pounds	125.9	123.5	122.8	150.3	148.5	148.5	161.5	150.1	130.7	140.8
145 to 149 pounds	66.9	71.1	107.8	119.6	127.4	126.8	126.0	131.3	119.2	120.2
150 to 154 pounds	42.0	57.5	97.7	77.9	105.1	101.0	110.4	103.7	103.7	98.1
155 to 159 pounds	26.4	32.2	42.6	60.3	71.6	75.5	71.9	71.3	80.0	71.8
160 to 164 pounds	21.8	10.2	20.1	39.1	51.7	61.3	59.3	63.4	66.0	56.4
165 to 169 pounds	9.3	8.5	30.1	23.0	35.8	33.0	34.2	40.3	44.4	36.5
170 to 174 pounds	4.7	3.4	5.0	9.0	15.9	23.4	19.1	19.3	35.2	23.7
175 to 179 pounds	4.7	5.1	2.5	7.1	8.7	12.1	15.6	16.2	23.4	16.0
180 pounds and over	1.6	11.8	2.5	7.3	11.7	10.4	15.2	22.8	55.0	30.5
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

TABLE G.—*Relation of weight to age.*

ABSOLUTE NUMBERS (COLORED TROOPS).

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
119 pounds and under	....	....	1	....	....	1	1	1	16	20
120 to 124 pounds	2	1	1	8	1	3	2	3	30	51
125 to 129 pounds	1	3	....	14	9	11	10	10	64	122
130 to 134 pounds	4	6	3	27	21	11	16	20	127	235
135 to 139 pounds	3	3	2	32	28	21	16	21	169	295
140 to 144 pounds	1	6	2	31	35	17	20	25	219	356
145 to 149 pounds	2	....	3	32	23	24	23	23	205	335
150 to 154 pounds	1	1	1	14	29	20	19	30	182	297
155 to 159 pounds	2	....	1	16	24	24	16	23	139	245
160 to 164 pounds	....	....	....	5	7	10	12	12	154	200
165 to 169 pounds	....	....	....	6	7	5	6	16	104	144
170 to 174 pounds	....	....	....	5	9	4	3	3	60	84
175 to 179 pounds	....	....	....	1	5	2	3	4	49	64
180 pounds and over	....	....	....	1	3	3	5	4	109	125
Total	16	20	14	192	201	156	152	195	1,627	2,573

TABLE G.—*Relation of weight to age*—Continued.

PROPORTIONAL NUMBERS (COLORED TROOPS).

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
119 pounds and under	....	....	71.4	....	....	6.4	6.6	5.1	9.8	7.8
120 to 124 pounds	125.0	50.0	71.4	41.7	5.0	19.2	13.2	15.4	18.4	19.8
125 to 129 pounds	62.5	150.0	....	72.9	44.8	70.5	65.8	51.3	39.3	47.4
130 to 134 pounds	250.0	300.0	214.3	140.6	104.5	70.5	105.3	102.6	78.1	91.3
135 to 139 pounds	187.5	150.0	142.9	166.7	139.3	134.6	105.3	107.7	103.9	114.7
140 to 144 pounds	62.5	300.0	142.9	161.5	174.1	109.0	131.6	128.2	134.6	138.4
145 to 149 pounds	125.0	....	214.3	166.7	114.4	153.9	151.3	117.9	126.0	130.2
150 to 154 pounds	62.5	50.0	71.4	72.9	144.3	128.2	125.0	153.8	111.9	115.4
155 to 159 pounds	125.0	....	71.4	83.3	119.4	153.9	105.3	117.9	85.4	95.2
160 to 164 pounds	....	....	....	26.0	34.8	64.1	79.0	61.5	94.7	77.7
165 to 169 pounds	....	....	....	31.3	34.8	32.1	39.5	82.1	63.9	56.0
170 to 174 pounds	....	....	....	26.0	44.8	25.6	19.7	15.4	56.9	32.6
175 to 179 pounds	....	....	....	5.2	24.9	12.8	19.7	20.5	30.1	24.9
180 pounds and over	....	....	....	5.2	14.9	19.2	32.9	20.5	67.0	48.6
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

Fifty-nine and forty one-hundredths per cent of white recruits weighed 140 pounds or over, while 1.57 per cent weighed less than 120 pounds; the corresponding figures for colored recruits were 71.90 and 0.78 per cent, showing that colored recruits are heavier than white recruits of the same height and age.

The next tables show separately for each race the chest measurements of accepted recruits and the proportion of each measurement per 1,000; also the chest measurement in relation to age in both absolute and proportional numbers:

TABLE H.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS (WHITE TROOPS).

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under	66	28	23	111	106	59	53	56	262	764
31 inches	114	94	45	404	309	152	166	142	679	2,105
32 inches	209	216	112	1,203	914	534	437	448	1,978	6,051
33 inches	162	134	100	1,292	1,173	666	610	549	2,706	7,392
34 inches	59	82	70	835	788	484	505	493	2,645	5,961
35 inches	22	21	27	443	449	298	308	304	2,021	3,893
36 inches	10	11	15	171	187	139	148	189	1,360	2,230
37 inches	1	2	5	50	69	39	58	62	739	1,025
38 inches	....	....	1	16	21	18	14	36	411	517
39 inches and over	....	3	1	5	9	8	10	6	394	436
Total	643	591	399	4,530	4,025	2,397	2,309	2,285	13,195	30,374

PROPORTIONAL NUMBERS (WHITE TROOPS).

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under	102.6	47.4	57.6	24.5	26.3	24.6	23.0	24.5	19.9	25.2
31 inches	177.3	159.0	112.8	89.2	76.8	63.4	71.9	62.1	51.5	69.3
32 inches	325.1	365.5	280.7	265.6	227.1	222.8	189.3	196.1	149.9	199.2
33 inches	251.9	226.7	250.6	285.2	291.5	277.9	264.2	240.3	205.1	243.4
34 inches	91.8	138.7	175.4	184.3	195.8	201.9	218.7	215.7	200.5	196.3
35 inches	34.2	35.5	67.7	97.8	111.5	124.3	133.4	133.1	153.2	128.2
36 inches	15.6	18.6	37.6	37.8	46.5	58.0	64.1	82.7	103.1	73.4
37 inches	1.6	3.4	12.5	11.0	17.1	16.3	25.1	27.1	56.0	33.7
38 inches	....	....	2.5	3.5	5.2	7.5	6.1	15.8	31.1	17.0
39 inches and over	....	5.1	2.5	1.1	2.2	3.3	4.3	2.6	29.9	14.4
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1.000.0

TABLE 1.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS (COLORED TROOPS).

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under.	....	1	1	8	2	4	4	7	28	55
31 inches	8	2	2	15	12	13	6	9	55	122
32 inches	4	11	6	60	48	19	31	30	215	424
33 inches	3	5	3	51	53	46	42	53	344	600
34 inches	....	1	2	39	42	32	29	44	322	511
35 inches	1	....	....	9	27	22	16	21	284	380
36 inches	....	....	....	6	12	11	17	21	195	262
37 inches	....	....	....	3	4	8	2	9	94	120
38 inches	....	....	....	1	1	1	3	1	52	59
39 inches and over	....	....	....	....	....	....	2	....	38	40
Total	16	20	14	192	201	156	152	195	1,627	2,573

PROPORTIONAL NUMBERS (COLORED TROOPS).

30 inches and under.	....	50.0	71.4	41.7	10.0	25.6	26.3	35.9	17.2	21.4
31 inches	500.0	100.0	142.9	78.1	59.7	83.3	39.5	46.2	33.8	47.4
32 inches	250.0	550.0	428.5	312.5	238.8	121.8	203.9	153.8	132.1	164.8
33 inches	187.5	250.0	214.3	265.6	263.7	294.9	276.3	271.8	211.4	233.2
34 inches	....	50.0	142.9	203.1	208.9	205.9	190.8	225.6	197.9	198.6
35 inches	62.5	....	....	46.9	134.3	141.0	105.3	107.7	174.5	147.7
36 inches	....	....	....	31.3	59.7	70.5	111.8	107.7	119.9	101.8
37 inches	....	....	....	15.6	19.9	51.3	13.2	46.2	57.8	46.6
38 inches	....	....	....	5.2	5.0	6.4	19.7	5.1	32.0	22.9
39 inches and over	....	....	....	....	....	....	13.2	....	23.4	15.5
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

The chest measurement of 46.30 per cent of white recruits was 34 inches and upward, while 2.52 per cent were 30 inches or under; the corresponding figures for colored recruits were 53.31 and 2.14 per cent, respectively, again showing an advantage on the side of the colored candidates.

The following table shows the causes of rejections among white and colored candidates examined for enlistment during the year 1905, with ratios per 1,000 rejected:

TABLE J.

	Total.				White.				Colored.			
	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000 examined.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000 examined.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000 examined.
1. Venereal diseases	1,275	4	1,279	100.19	1,107	4	1,111	92.84	168	.....	168	210.00
2. Heart disease	1,122	58	1,180	92.43	1,068	57	1,125	94.02	54	1	55	68.75
3. Defects of vision	1,022	76	1,098	86.01	979	76	1,055	88.17	43	.....	43	53.75
4. Varicocele	892	3	895	70.11	862	3	865	72.29	30	.....	30	37.50
5. Hernia	660	32	692	54.21	614	32	646	53.98	46	.....	46	57.50
6. Underweight	638	10	648	50.76	624	10	634	52.98	14	.....	14	17.50
7. Hemorrhoids	471	......	471	36.89	443	......	443	37.02	28	.....	28	35.00
8. Diseases of the organs of locomotion, except spinal curvature	442	9	451	35.33	410	9	419	35.02	32	.....	32	40.00
9. Varicose veins	442	4	446	34.94	422	4	426	35.60	20	.....	20	25.00
10. Defective teeth	348	1	349	27.34	339	1	340	28.41	9	.....	9	11.25
11. Diseases of the skin	342	2	344	26.95	327	2	329	27.49	15	.....	15	18.75
12. Chest development insufficient	302	2	304	23.81	282	2	284	23.73	20	.....	20	25.00
13. Defects of development, except as shown in detail	262	......	262	20.52	250	......	250	20.89	12	.....	12	15.00
14. Diseases of the genito-urinary system (nonvenereal)	252	3	255	19.98	233	3	236	19.72	19	.....	19	23.75
15. Curvature of spine	245	2	247	19.35	239	2	241	20.14	6	.....	6	7.50
16. Defects of hearing	210	9	219	17.15	198	9	207	17.30	12	.....	12	15.00
17. Injuries	191	8	199	15.59	182	8	190	15.88	9	.....	9	11.25
18. Diseases of the respiratory system	184	5	189	14.80	171	5	176	14.71	13	.....	13	16.25
19. Flat feet	169	8	177	13.87	152	8	160	13.37	17	.....	17	21.25
20. Under height	173	......	173	13.55	162	......	162	13.54	11	.....	11	13.75
21. Alcoholism	147	1	148	11.60	145	1	146	12.20	2	.....	2	2.50
22. Physical debility	130	......	130	10.18	126	......	126	10.53	4	.....	4	5.00
23. Tuberculosis	116	3	119	9.32	109	3	112	9.36	7	.....	7	8.75
24. Diseases of the digestive system, except as shown in detail	101	1	102	7.99	91	1	92	7.69	10	.....	10	12.50
25. Diseases of the circulatory system, except as shown in detail	90	......	90	7.05	72	......	72	6.02	18	.....	18	22.50
26. Diseases of the eye, except defects of vision	55	2	57	4.47	53	2	55	4.60	2	.....	2	2.50
27. Epidemic diseases	47	......	47	3.68	44	......	44	3.68	3	.....	3	3.75
28. Overweight and obesity	31	......	31	2.43	23	......	23	1.92	8	.....	8	10.00
29. General diseases, except as shown in detail	29	......	29	2.27	28	......	28	2.34	1	.....	1	1.25
30. Weakness of mind	25	3	28	2.19	22	3	25	2.09	3	.....	3	3.75
31. Diseases of the nervous system, except as shown in detail	15	8	23	1.80	13	8	21	1.75	2	.....	2	2.50
32. Diseases of the ear, except defects of hearing	15	2	17	1.33	15	2	17	1.42	.....	.....	.....	.....
33. Overheight	4	....	4	.31	2	....	2	.17	2	.....	2	2.50
34. Causes not physical	2,063	....	2,063	161.60	1,904	....	1,904	159.12	159	.....	159	198.75
Total	12,510	256	12,766	1,000.00	11,711	255	11,966	1,000.00	799	1	800	1,000.00

The principal causes of rejection were practically the same as last year, the most important changes being as follows: The rejections for defects of development (including 6, 12, 13, 20, 28, and 33) were 113.23 for white and 83.75 for colored recruits, as compared with 120.08 and 98.68 for the same races in 1904. For defects of hearing, the total rejections rose from 11.53 in 1904 to 17.15 in 1905.

UNITED STATES CONTINENTAL, EXCLUSIVE OF ALASKA.

The average mean enlisted strength of the troops serving in the United States during the year was 42,834, of which 39,506 were white and 3,328 were colored. All colored troops served within the limits of the United States proper.

The admission and death rates, 1,250.29 and 6.14, were lower than those for last year, 1,305.83 and 6.44, but still slightly higher than for 1903. The discharge for disability and constantly noneffective rates, 33.88 and 47.26, were slightly higher than for 1904, 31.04 and 46.32, but lower than for 1903. The explanation of the higher discharge and noneffective rates is to be found in the new system of recruiting, by which many men who would have formerly been rejected at recruiting stations are now held in service on sick report for quite long periods of time and finally discharged on certificate of disability.

The death rate for disease, 3.55, is the lowest attained since the exceptionally low rate of 3.14 in 1897. Excluding 8 deaths among soldiers whose commands were in the Philippines and who had been invalided home, the death rate reaches the extremely low figure of 3.36.

The admission rate for external causes was little more than one-fourth that for disease, while the death rate, 2.59, is nearly equal to that for disease.

Venereal diseases again led all others as causes of admission, discharges, and noneffectiveness, and the rates, 178.72, 4.66, and 11.04, were, except the discharge rate, all higher than for 1904. Next in order of importance as causes of admission were bronchitis, acute and chronic, rate 62.57; diarrhea and enteritis, rate 51.80; malaria, rate 45.28; and influenza, rate 39.34.

As a cause of death, tuberculosis led with a rate of 0.86; followed successively by pneumonia, rate 0.42; typhoid fever, rate 0.30; alcoholism, rate 0.26; appendicitis, rate 0.21; and epidemic cerebro-spinal meningitis, rate 0.16.

As causes of noneffectiveness, after venereal diseases, followed in order tuberculosis, bronchitis, and rheumatism.

A study of the causes of death, as exhibited in the following table, shows that over 42 per cent were due to external causes, and of these 23 per cent were suicidal and 20 per cent due to (all but one accidental) drowning. As causes of deaths from disease, pneumonia, which had first place last year with a rate of 0.82, dropped to second place with a rate of 0.42; tuberculosis led with a rate of 0.86, as against 0.68 for 1904; typhoid fever, alcoholism, and appendicitis were next most potent as causes of deaths:

Causes of deaths.	Number of deaths.	Ratio per 1,000 of— Mean strength.	Ratio per 1,000 of— Total deaths.
DISEASES.			
Tuberculosis (pulmonary 32, pulmonary and laryngeal 1, meningeal 2, acute miliary, general, 1, chronic tubercular peritonitis 1)	37	0.86	243.42
Pneumonia, lobar	18	.42	118.42
Typhoid fever	13	.30	85.53
Alcoholism (acute 8, chronic 3)	11	.26	72.37
Appendicitis	9	.21	59.21
Cerebro-spinal meningitis (epidemic)	7	.16	46.05
Nephritis (chronic parenchymatous 2, acute parenchymatous 2, chronic interstitial 1)	5	.12	32.89
Purulent infection and septicemia	4	.09	26.32
Heart disease, organic	4	.09	26.32
Cancer	4	.09	26.32
Dysentery (chronic amebic 2, chronic specific 1, acute catarrhal 1)	4	.09	26.32
Sprue, chronic	3	.07	19.74
Abscess of liver	3	.07	19.74
Diabetes	3	.07	19.74
Disease of the pancreas	2	.05	13.16
Cirrhosis of liver	2	.05	13.16
Aneurism	2	.05	13.16
Apoplexy	2	.05	13.16
Myelitis	2	.05	13.16
Tumor, cystic, of brain	2	.05	13.16
Measles	1	.02	6.58
Influenza	1	.02	6.58
Bronchitis, acute	1	.02	6.58
Malarial fever, estivo-autumnal	1	.02	6.58
Syphilis	1	.02	6.58
Gonorrheal endocarditis	1	.02	6.58
Arterio sclerosis	1	.02	6.58
Embolism, cerebral	1	.02	6.58
Epilepsy	1	.02	6.58
Intestinal obstruction	1	.02	6.58
Nervous shock during operation on rectum and bladder for suspected malignant ulceration	1	.02	6.58
Gangrene, scrotum and groin, following operation for varicocele, believed to have been caused by carbolic-acid poisoning	1	.02	6.58
Causes undetermined (died away from post 1, autopsy failed to disclose cause 1, fell dead while playing ball 1)	3	.07	19.74
Total	152	3.55	1,000.00
INJURIES.			
Gunshot (suicidal 13, homicidal 9, accidental 7, by police 2, by guard 2, in a brawl 2)	35	.82	315.32
Drowning (suicidal 1, accidental 21)	22	.51	198.20
Poison, corrosive and irritant (wood alcohol 6, all accidental; carbolic acid 4, and copper sulfate 1, 5 suicides)	11	.26	99.10
Crushing (gun carriage 3, railroad cars 3, army wagon 1, and caving in of gravel bank 1; all accidental)	8	.19	72.07
Fracture (of skull 7, of spine 1, by falling 5, by horse falling on him 1, by diving in shallow water 1, in brawl while drunk 1)	8	.19	72.07
Poison, narcotic, acute (suicidal 3, homicidal 1, accidental 2)	6	.14	54.05
Wounds, incised (suicidal 2, homicidal 3)	5	.12	45.05
Asphyxiation (illuminating gas 2, chloroform 1; all accidental)	3	.07	27.03
Wounds, punctured (homicidal)	3	.07	27.03
Burns (explosion of powder 1, burning house 1)	2	.05	18.02
Freezing	2	.05	18.02
Hanging (suicidal)	2	.05	18.02
Spinal apoplexy, traumatic	1	.02	9.01
Concussion of brain (fall from horse)	1	.02	9.01
Contusion of abdomen (kick of horse)	1	.02	9.01
Killed by railroad train (accidental)	1	.02	9.01
Total	111	2.59	1,000.00
Grand total	263	6.14	....

Suicides, 26; homicides, 16.

PREVALENCE OF SPECIAL DISEASES.

TYPHOID FEVER.

There was a remarkable diminution in the number of admissions for typhoid fever during the year, the total number having been 153 and the rate 3.57, as against 247 and 5.62 for 1904; the death ratio, however, was a little higher than for 1904, 0.30 and 0.27 respectively, while the case mortality has advanced from about 5 per cent to about 8.5 per cent.

Cases of typhoid fever were reported from 50 stations, about the same number as last year, but the distribution of the cases was very different. Forts Leavenworth, Oglethorpe, Dade, and Howard, and Jefferson Barracks, which reported, respectively, in 1904, 53, 25, 12, 6, and 7 cases, in 1905 reported none, and Forts Niagara, Sam Houston, and Hancock had, respectively, 11, 11, and 8 cases in 1904, and 2, 1, and 1 cases in 1905.

On the other hand the following posts showed a decided increase in number of admissions: Fort Myer from 7 to 20; Washington Barracks (post and general hospital), 11 to 13; Columbus Barracks, 3 to 13; Whipple Barracks, 2 to 9, and Fort Logan, 1 to 9.

The changed conditions which are thought to have caused the great improvement in the number of admissions at Leavenworth, Oglethorpe, Dade, and Niagara have been described in last year's report; the cause of the improvement noted at other posts is not apparent; possibly the letter from this office calling attention to the special importance of contact infection may have had something to do with it.

No report has been received as to the cause of the outbreaks at Washington Barracks and Columbus Barracks. At Whipple Barracks the cases were attributed to an infected water supply.

At Fort Myer the surgeon, under date of September 14, reported 12 cases of typhoid fever under treatment and made the following remarks:

> Cases were admitted from Troop G, Thirteenth Cavalry, as follows: August 23, 1; August 26, 2; August 28, 1; September 2, 1; September 4, 1; September 6, 1; total, 7.
>
> Cases admitted from Fourth Battery Field Artillery, September 1, 1; September 5, 1; September 7, 1; total, 3.
>
> Cases admitted from guardhouse, August 19, 1; August 27, 1; total, 2.
>
> The first man admitted was sick only two days before admission; the others appear to have been sick several days before admission.
>
> While the exact source of the disease has not been determined, the following facts bearing on the case have been obtained: The three men of the Fourth Battery and the two prisoners messed with G Troop, Thirteenth Cavalry, at this post from August 3 to 17, 1905, during the absence of the Fourth Battery and other troops in the field; none of the men affected had been absent from the post.
>
> The last sporadic case previously admitted was on July 28, 1905, from H Troop, Thirteenth Cavalry, and apparently came from drinking from a so-called spring near the reservation.
>
> The water supply of the post is filtered and is examined constantly. The ice supply is under observation, but the icemen have sometimes furnished ice not made from distiled water and are known to have done so this summer. The dairies furnishing milk to the post are inspected occasionally, but of course can not be kept under constant observation.
>
> The barracks have not been as well screened as usual this summer, and the kitchens have contained many flies.
>
> Orders were issued August 2, 1905, after the occurrence of the last previous case, directing all men not to drink from wells, springs, or other sources of water supply in the neighborhood.

Chart showing the admission and death ratios per thousand of mean strength for typhoid fever by years since 1897 for the United States proper.

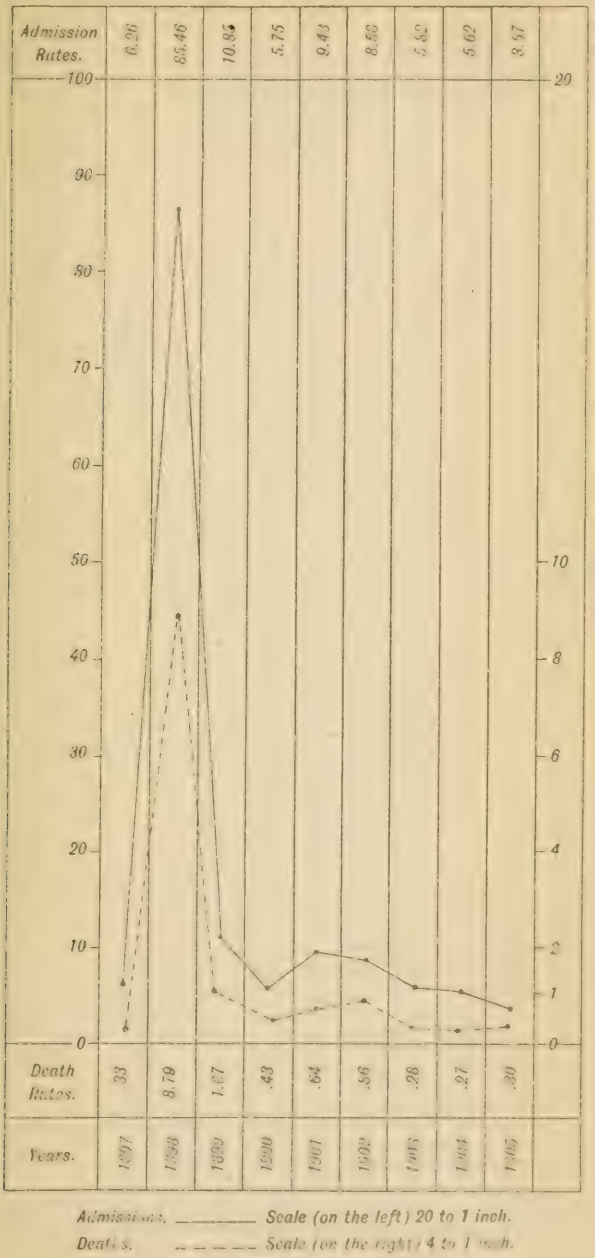
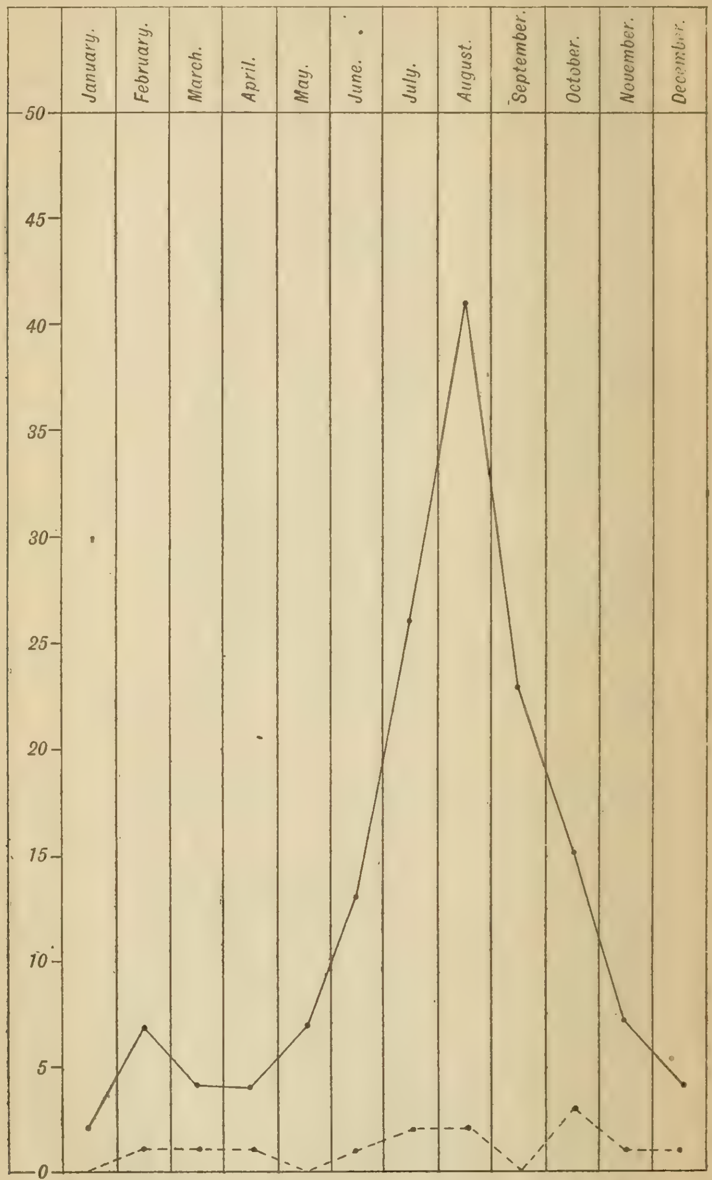


Chart showing the admission and death ratios per thousand of mean strength for typhoid fever by months in the United States proper.



Admissions, ————	2	7	4	4	7	13	26	41	23	15	7	4
Deaths, – – – – –	0	1	1	1	0	1	2	2	0	3	1	1

The water is being boiled in addition to filtering; the urinals and closets are being disinfected; the dairies are under inspection also, and an effort is being made to rid the kitchens of flies.

From the fact that all of the cases were messing in one troop a short time previous to the manifestation of the disease it would appear to be from some local infection. The sanitary condition of the post and the general health of the command are good.

At Fort Logan the outbreak was attributed to the unauthorized use of water from the irrigating ditches for drinking purposes.

As was noted in 1904 the great majority of typhoid admissions were in soldiers serving their first enlistment and under 25 years of age.

Typhoid fever, military stations, United States, 1905.

Station.	Admitted.	Days treated.	Constantly sick.	Died.
Fort Myer, Va	20	1,333	3.65	......
Columbus Barracks, Ohio	13	925	2.53	1
Fort Logan, Colo	9	736	2.02	......
Whipple Barracks, Ariz	9	633	1.73	......
Washington Barracks, D. C. (post)	9	598	1.64	2
Field, Department of the East	6	78	.21	......
Fort Monroe, Va	5	605	1.66	......
Fort Porter, N. Y	5	292	.80	......
Washington Barracks, D. C. (general hospital)	4	395	1.08	......
Fort Slocum, N. Y	4	266	.73	......
Fort Riley, Kans	4	203	.56	......
Fort Ethan Allen, Vt	3	224	.61	......
Fort Moultrie, S. C	3	174	.48	......
Fort Jay, N. Y	3	165	.45	......
Fort Snelling, Minn	3	148	.41	1
Fort D. A. Russell, Wyo	3	118	.32	1
Fort Mason, Cal	3	107	.29	1
Presidio, San Francisco, Cal. (general hospital)	2	618	1.69	......
Fort Niagara, N. Y	2	176	.48	......
Benicia Barracks, Cal	2	148	.41	......
Fort Caswell, N. C	2	143	.39	1
Fort McIntosh, Tex	2	128	.35	1
Fort Dupont, Del	2	92	.25	......
Fort McHenry, Md	2	86	.24	......
Fort Sheridan, Ill	2	79	.22	......
Fort Banks, Mass	2	66	.18	......
Fort Assinniboine, Mont	2	64	.18	1
Fort Walla Walla, Wash	2	59	.16	1
Watervliet Arsenal, N. Y	2	28	.08	1
Fort McDowell, Cal. (depot of recruits)	2	8	.02	......
Field, Department of California	2	......	......	......
Fort Adams, R. I	1	125	.34	......
Fort Douglas, Utah	1	97	.27	......
Fort Barrancas, Fla	1	81	.22	......
Vancouver Barracks, Wash	1	80	.22	......
Fort Sam Houston, Tex	1	79	.22	......
Fort Thomas, Ky	1	75	.21	......
Fort Strong, Mass	1	70	.19	......
Fort Stevens, Oreg	1	67	.18	......
Allegheny Arsenal, Pa	1	65	.18	......
Fort Preble, Me	1	58	.16	......
Fort Wright, Wash	1	56	.15	......
Fort Totten, N. Y	1	55	.15	......
Fort Hancock, N. J	1	54	.15	......
Fort Rosecrans, Cal	1	52	.14	......
Fort Reno, Okla	1	46	.13	1
Fort McPherson, Ga	1	44	.12	......
Field, Department of the Colorado	1	38	.10	......
Fort Bliss, Tex	1	23	.06	......
Fort Sill, Okla	1	20	.06	1

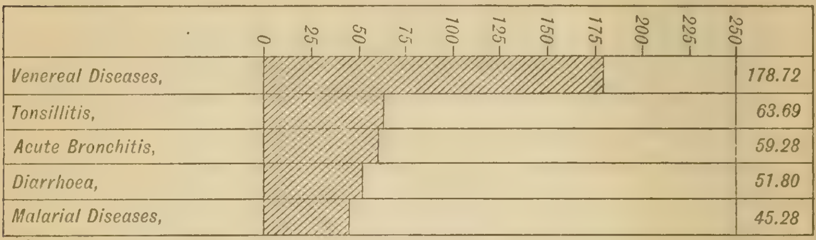
Stations having days and no admissions in the year are not used in this table.

UNDETERMINED FEVERS.

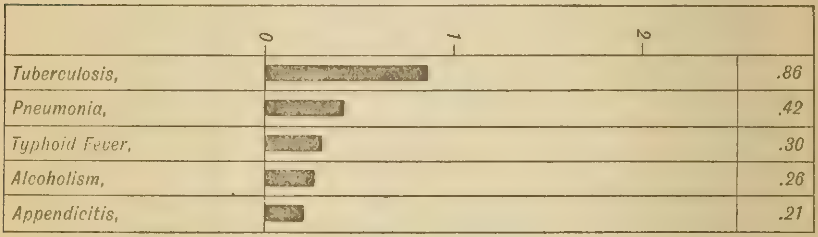
The ratio of these fevers advanced slightly, from 6.26 to 6.91; with proper care in diagnosis the number of these cases should decrease each year.

Charts showing the relative admission, death, discharge, and noneffective ratios per thousand of mean strength for the five diseases causing the highest rates in the United States proper.

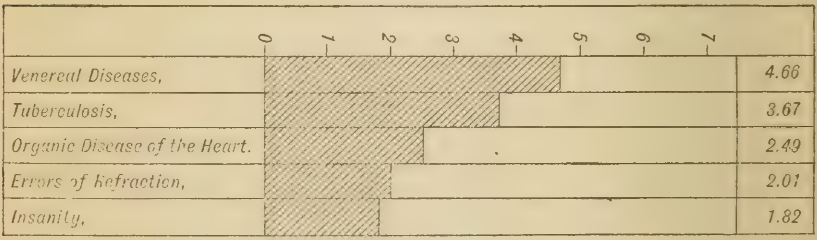
ADMISSIONS.



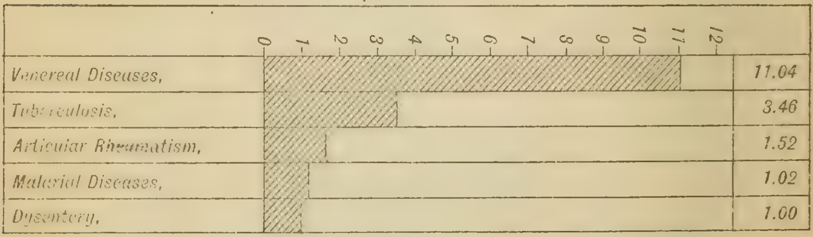
DEATHS.



DISCHARGES.



NONEFFECTIVE.



MALARIAL DISEASES.

The steady improvement in the ratios for this class of diseases continued, the total admission rate was 45.29 for 1905, as against 49.16 for 1904, and 127.96 for the entire period since 1899; the figures are given in detail in the following table:

	Ratios per 1,000 of mean strength.											
	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
Malarial intermittent fever:												
Year of 1905	44.09	16.52	41.95	......	......	......	......	......	......	0.89	0.25	0.84
Year of 1904	45.37	18.58	43.47	......	......	......	......	......	......	.81	.14	.78
Years 1899-1904	......	......	107.42	......	......	......	......	......	......	......	......	......
Malarial remittent or continued fever:												
Year of 1905	1.77	......	1.64	......	......	......	0.03	......	0.02	.07	......	.06
Year of 1904	4.07	2.24	3.94	......	......	......	......	......	......	.18	.17	.18
Years 1899-1904	......	......	14.89	......	......	......	......	......	.02	......	......	......
Pernicious malarial fever:												
Year of 1905	.31	......	.28	......	......	......	......	......	......	.005	......	.005
Year of 1904	.02	......	.02	......	......	......	......	......	......	.003	......	.003
Years 1899-1904	......	......	.17	......	......	......	......	......	.05	......	......	......
Malarial cachexia:												
Year of 1905	1.54	......	1.42	0.08	......	0.07	......	......	......	.13	......	.12
Year of 1904	1.84	.32	1.73	......	......	......	......	......	......	.14	.05	.13
Years 1899-1904	......	......	5.48	......	......	.49	......	......	.02	......	......	......
Total malarial diseases:												
Year of 1905	47.71	16.53	45.29	.08	......	.07	.03	......	.02	1.09	.24	1.02
Year of 1904	51.30	21.16	49.16	......	......	......	......	......	......	1.15	.54	1.09
Years 1899-1904	......	......	127.96	......	......	.49	......	......	.09	......	......	......

YELLOW FEVER.

No case of yellow fever occurred at any military post tho extensive epidemics of that disease prevailed at Pensacola, Fla., and New Orleans, La., in or near both of which cities troops are stationed. In neither case was it deemed necessary to remove the garrison.

The measures used to protect the troops were the same as those so successfully instituted in the yellow fever outbreak in Texas in 1903, and based entirely on the mosquito transmission of the disease.

Situated as Jackson Barracks was, in the midst of a highly infected portion of New Orleans, and with a population practically entirely composed of nonimmunes, the post surgeon, First Lieut. W. L. Little, is entitled to much credit for his active and intelligent work in the protection of the garrison from infection.

ERUPTIVE FEVERS.

Smallpox and measles both showed a decidedly reduced admission rate, 0.16 and 5.32 for 1905; 0.32 and 17.98 for 1904.

DYSENTERY.

The admission rate for dysentery fell from 8.49 in 1904, to 5.23 in 1905; nearly one-half of the infections were of the amebic type.

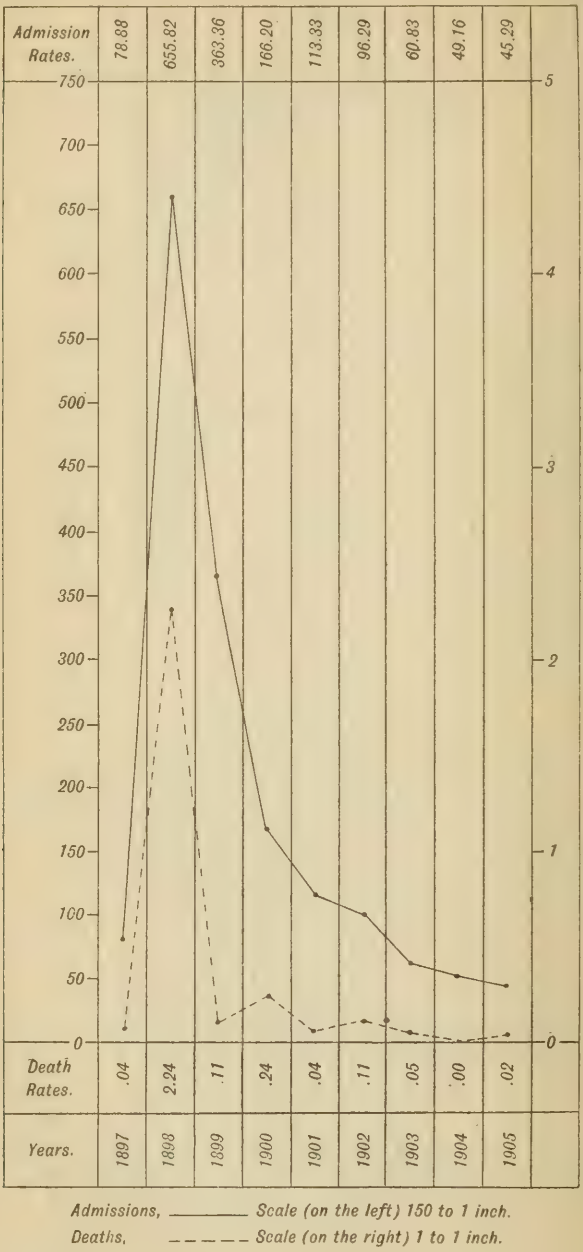


Chart showing the relative admission and death ratios per thousand of mean strength by years since 1897 for malarial fevers in the United States proper.

TICK FEVER.

Maj. Charles F. Kieffer, surgeon, U. S. Army, submitted an interesting report on the subject of "tick fever," which tends to confirm the investigations of Assistant Surgeon Ashburn, referred to in the last annual report, in so far as it denies the presence of a protozoan (the so-called "piroplasma hominis") in the blood of the patients. Major Kieffer is of the opinion that the alleged protozoa were nothing more or less than artefacts.

The history of six cases are given and it would appear that tick bites bear a causal relation to the disease. In all of the cases there was an undoubted history of tick bites and distinct local evidence thereof. In many cases small nodules had formed at the point of attachment of the arachnid which persisted for weeks. They were hard, pale, and quite painless, varying in size from that of a pea to a small marble. In other cases the location of the bite was marked by a small red papule, and from a number of these papules the rostrum of the insect was removed.

The Widal reaction with the bacillus of typhoid fever was carefully and repeatedly looked for in each case with negative results. Search for malarial parasites was also made in all cases and none were found.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

The outbreak of this disease which occurred at Fort Bliss, Tex., in June, 1904, with 3 cases and 1 death, was followed in January, 1905, by another outbreak of 4 cases—all fatal. Of this latter group of cases, 3 were from different companies, and the fourth was a general prisoner who had been in the guardhouse a month. The cases occurred January 12, 15, 17, and 21. The guardhouse was believed to be the source of infection, as each of the soldiers had been on guard within the incubation period and the prisoner had been nowhere else than in the guardhouse. In all cases the diagnosis was confirmed by autopsy or lumbar puncture, or both.

TUBERCULOSIS.

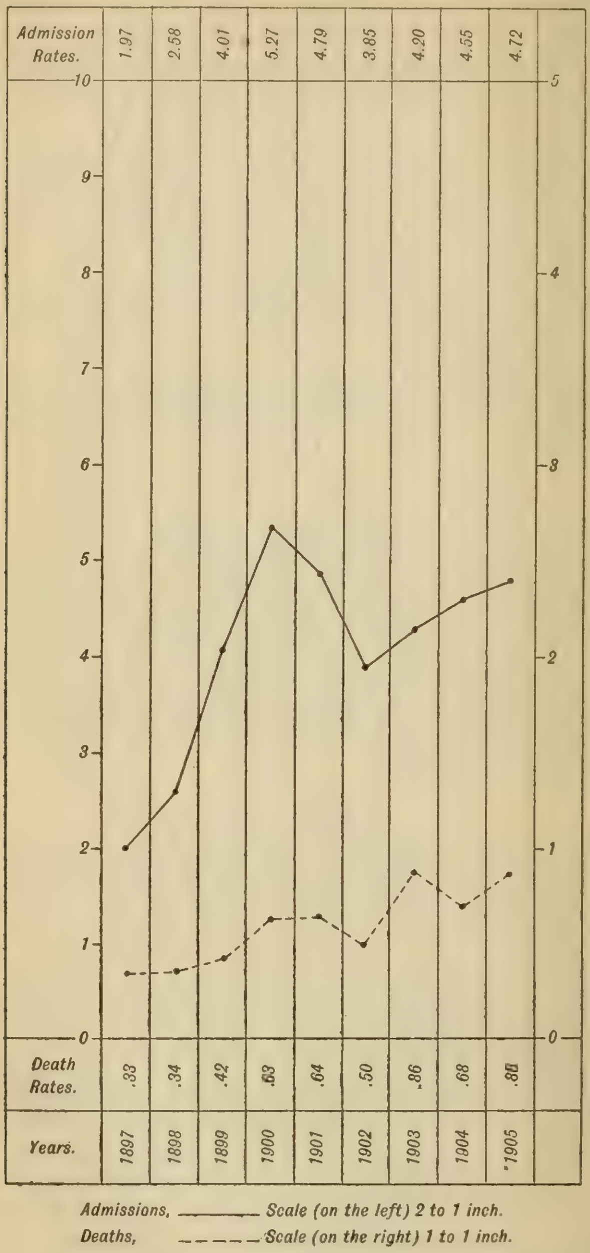
All the ratios for tuberculosis were slightly higher than for 1904. Nearly one-half the admissions were in soldiers serving their first enlistment and nearly one-fourth in those of less than one year's service.

The occurrence of 4 cases of pulmonary tuberculosis in one company of Coast Artillery at Fort Moultrie, S. C., led to a request from this Office for an explanation from the surgeon of the post, who submitted the following report:

> In compliance with instructions in letter from the Office of the Surgeon-General dated December 11, 1905, I have the honor to report the following men who have been transferred to Fort Bayard, N. Mex., suffering with tuberculosis:

Name and company.	Admitted.	Age.	Service.
		Years.	*Years.*
Private W. L., Thirty-sixth Company, Coast Artillery	May 10, 1905	30¼	5
Corporal W. W., Thirty-sixth Company, Coast Artillery	Aug. 30, 1905	23	2
Corporal C. McK., Thirty-sixth Company, Coast Artillery	Oct. 5, 1905	23	1
Private S. A. A., Thirty-sixth Company, Coast Artillery	Oct. 16, 1905	25	3½

Chart showing the relative admission and death ratios per thousand of mean strength for tuberculosis in the United States proper by years since 1897.



The facts that they all belonged to the Thirty-sixth Company, were men of mature age, had been in good health and active service, after passing careful physical examinations, for somewhile led me to believe that they became infected incident to service and that cause of infection was local. Probably Corporal W., Corporal McK., and Private L. inherited a tubercular diathesis, and that some exposure precipitated the onset of the disease. Private A. was apparently infected from some local cause when his natural power of immunity was lessened by some intercurrent disease. He was admitted to hospital with croupous pneumonia and recovered apparently, which, in view of subsequent development of tuberculosis, may have been a tubercular consolidation in the first place. On his second admission, October 16, 1905, he presented the symptoms complete of a mild typhoid fever, though Widal tests were negative, and on convalescence he developed cough, expectoration and temperature of tuberculosis, and the tubercle bacillus was found. In looking for the source of infection of the two cases, Private W. L. and Corporal W. W., the symptoms were first manifest in a cold caught on the way to the joint Army and Navy exercises near Baltimore, which went on to the discovery later, and their presence indicated by the symptoms, of the tubercle bacilli.

The trip was made in a most uncomfortable fashion in cars that had been protested. The cars were provided by the Atlantic Coast Line and were negro tourist day coaches of the worst class and were filthy to an extreme. The weather was cold, and the fatigue incident to sitting up overnight and traveling in such discomfort in a crowded car for about eighteen to twenty hours seems to have been the source of infection in these two men, and possibly in the case of Corporal McK. Before this trip they had been in good health. Private L. was sent to Fort Bayard from Fort McHenry, where he was transferred with an acute case of tuberculosis from Fort Armistead.

The barracks at this post are heated by hot air furnaces with not a few floor registers, one of these at the foot of the stairway. It is the place of all others where men in passing will expectorate, and at all times a draft of hot air coming thru these registers quickly disseminates any infection in its virulent form. Influenza is disseminated in the same way.

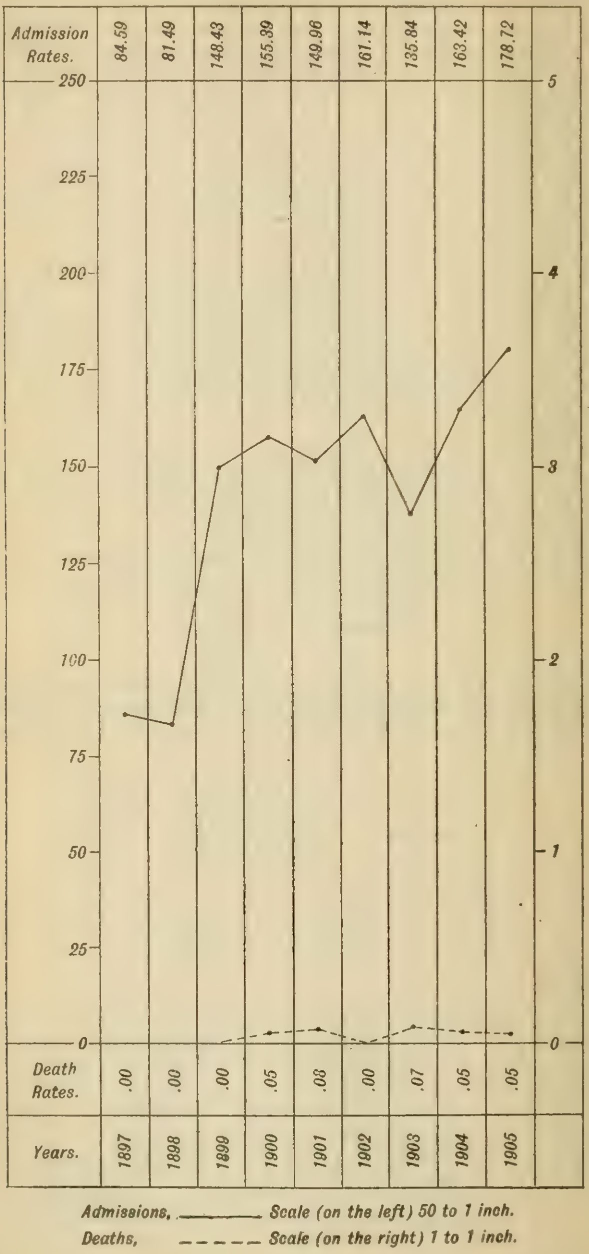
These registers I often have washt out with carbolic acid solution and spittoons placed near them and yet still they expectorate into the register.

VENEREAL DISEASES.

The constant increase in venereal diseases, which has been noted for several years past, was maintained in 1905; the admission rate was 178.72 against 163.43 for 1904. The details are given in the following table:

	Ratios per 1,000 of mean strength.											
	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
Gonorrhea, including other venereal:												
Year 1905	120.12	97.05	118.31	1.25	1.80	1.29	0.03		0.02	6.46	4.08	6.26
Year 1904	108.60	86.83	107.05	1.10	2.56	1.21				5.79	3.56	5.63
Years 1899–1904			99.33			1.50						
Chancroids:												
Year 1905	30.27	31.85	30.39	.05		.05				1.88	2.08	1.90
Year 1904	27.73	30.12	27.90	.07		.07				1.74	1.65	1.74
Years 1899–1904			28.72			.09						
Syphilis:												
Year 1905	30.40	25.54	30.02	3.37	2.70	3.32		0.30	.02	2.93	2.34	2.88
Year 1904	29.59	13.78	28.47	3.92	1.60	3.75	.05		.05	2.59	.86	2.46
Years 1899–1904			21.87			3.99			.04			
Total venereal:												
Year 1905	180.78	154.44	178.72	4.66	4.51	4.66	.03	.30	.04	11.27	8.50	11.05
Year 1904	165.93	130.73	163.43	5.10	4.17	5.02	.05		.05	10.12	6.07	9.83
Years 1899–1904			149.92			5.58			.04			

Chart showing the relative admission and death ratios per thousand of mean strength for venereal diseases in the United States proper by years since 1897.



ALCOHOLISM.

The admission rate for alcoholism increased from 25.42 in 1904 to 30.22 in 1905; the other rates were about the same.

Many medical officers consider that the abolition of the sale of beer in post exchanges has had much to do with the increase in alcoholism and venereal disease, by driving the soldiers to disreputable resorts outside of the post and beyond the control of the post authorities. In that opinion this office concurs.

INSANITY.

The admission rate for insanity decreased from 1.71 in 1904 to 1.61 in 1905.

PNEUMONIA.

The admission and death ratios for pneumonia dropt from 5.37 and 0.82 in 1904 to 3.25 and 0.42 for 1905. The distribution of the disease is shown in the following tables:

Department.	Ratio per 1,000.		Absolute numbers.	
	Admitted.	Died.	Admitted.	Died.
Department of the Colorado	5.37		12	
Department of Dakota	4.68		12	
Department of the Columbia	4.21	0.70	12	2
Department of California	3.99	.67	18	3
Department of the Missouri	3.34	.74	27	6
Department of the Gulf	3.19		10	
Department of the East	2.59	.30	34	4
Department of Texas	2.54	.64	8	2
Department of the Lakes	1.85	.37	5	1
General hospitals			1	
United States, continental, excluding Alaska	3.25	.42	139	18

Post.	Admissions.	Deaths.	Post.	Admissions.	Deaths.
Fort Leavenworth, Kans	7	3	Fort Washakie, Wyo	2	
Presidio of San Francisco, Cal. (post)	6	1	Fort Wingate, N. Mex	2	
Plattsburg Barracks, N. Y	6		Fort Thomas, Ky	1	1
Fort Ethan Allen, Vt	5	1	Fort Columbia, Wash	1	1
Fort Douglas, Utah	5		West Point (soldiers' hospital)	1	1
Fort Assinniboine, Mont	5		Fort Myer, Va	1	
Fort McDowell, Cal. (depot of recruits)	4	2	Columbus Barracks, Ohio	1	
Fort D. A. Russell, Wyo	4	1	Fort Riley, Kans	1	
Vancouver Barracks, Wash	4		Fort Moultrie, S. C	1	
Fort Snelling, Minn	4		Fort Mason, Cal	1	
Cantonment Presidio of San Francisco, Cal	4		Fort Niagara, N. Y	1	
Fort Logan, Colo	4		Benicia Barracks, Cal	1	
Fort Robinson, Nebr	3	2	Fort McHenry, Md	1	
Fort McIntosh, Tex	3	1	Fort Stevens, Oreg	1	
Fort Walla Walla, Wash	3	1	Fort Wright, Wash	1	
Fort Sam Houston, Tex	3	1	Fort Worden, Wash	1	
Fort Oglethorpe, Ga	3		Field, Department of the Columbia	1	
Fort Wadsworth, N. Y	3		Fort Andrews, Mass	1	
Fort McPherson, Ga	3		Madison Barracks, N. Y	1	
Fort Niobrara, Nebr	3		Fort Schuyler, N. Y	1	
Fort Screven, Ga	3		Fort Wayne, Mich	1	
Fort Slocum, N. Y	3		Fort Crook, Nebr	1	
Fort Hunt, Va	2	1	Fort Des Moines, Iowa	1	
Fort McKinley, Me	2	1	Fort Mackenzie, Wyo	1	
Fort Sheridan, Ill	2		Fort Harrison, Mont	1	
Fort Strong, Mass	2		Fort Keogh, Mont	1	
Fort Reno, Okla	2		Fort Missoula, Mont	1	
Fort Hamilton, N. Y	2		Fort Huachuca, Ariz	1	
Fort Warren, Mass	2		Fort Baker, Cal	1	
Jefferson Barracks, Mo	2		Fort McDowell, Cal	1	
Fort Meade, S. Dak	2		General hospitals	1	

Chart showing the relative admission and death ratios per thousand of mean strength for alcoholism in the United States proper by years since 1897.

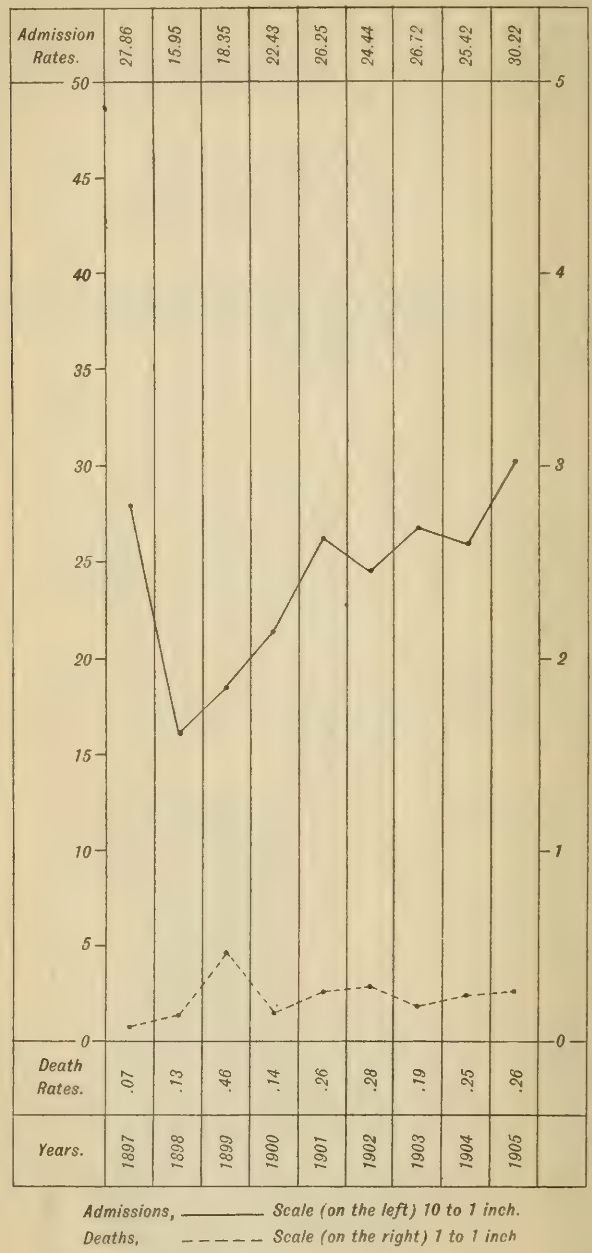


Chart showing the relative admission and death ratios per thousand of mean strength for insanity in the United States proper by years since 1897.

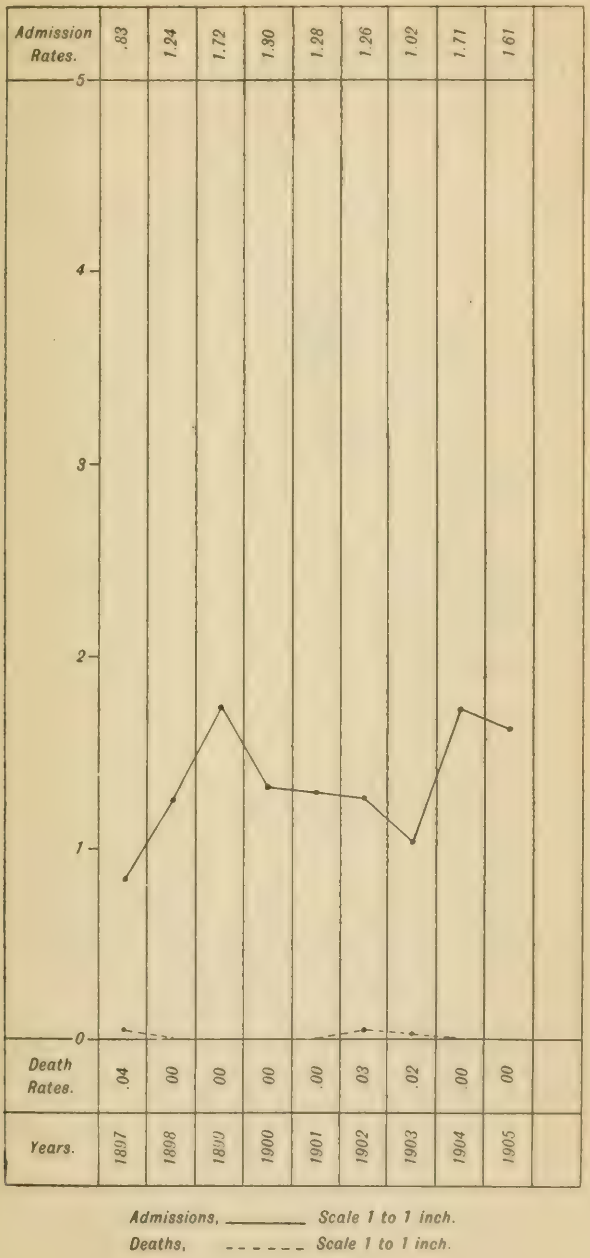
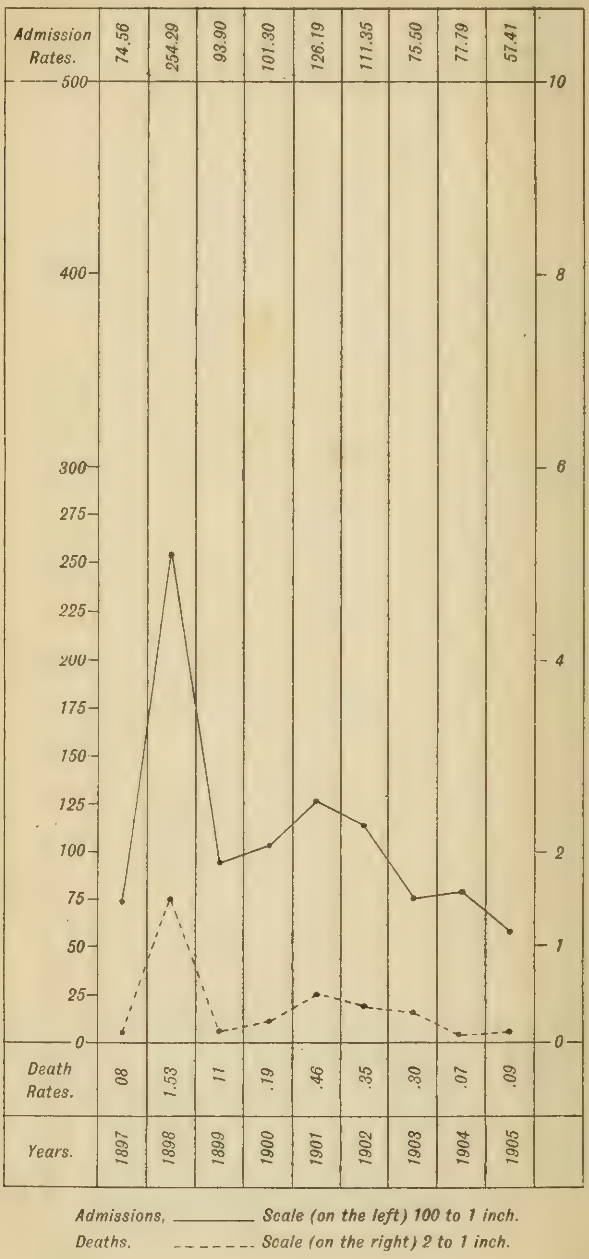


Chart showing the relative admission and death rates per thousand of mean strength for diarrheal diseases (including cholera nostras, dysentery, diarrhea, and enteritis) for the United States proper by years since 1897.



The highest admission rate was in the Department of the Colorado and the lowest in the Department of the Lakes. The case mortality in the States of Colorado, Wyoming, Utah, and Nebraska, which in 1904 was 100, 50, 25, and 22 per cent, respectively, in 1905 was 0, 14.28, 20, and 28.57 per cent.

DIARRHEA AND ENTERITIS.

The admission ratio for these diseases fell from 69.07 in 1904 to 51.80 in 1905.

HEPATIC ABSCESS.

The admission rate for this disease, 0.21, was less than half that for 1904.

INFLUENCE OF STATION.

All the rates except for deaths were highest in the Department of the Lakes; the discharge for disability rate was particularly high, more than twice as great as that for the United States total and nearly six times as great as for the Department of Texas. The high rates in the Department of the Lakes may be partly accounted for by the fact that it includes the large recruiting depot at Columbus Barracks, where many recruits are held on sick report for long periods to determine their fitness for service, and many are discharged.

The lowest admission rates are found in the Department of the Columbia, the lowest discharge rate in the Department of Texas, the lowest death rate in the Department of the Gulf, and the lowest noneffective rate in the Department of California. The highest death rate was noted in the Department of Dakota. Excluding injuries, venereal diseases, and alcoholism, the highest death rate occurred in the Department of Texas.

The following table shows the relative prevalence of certain special diseases by departments.

It will be observed that the Department of the Gulf was notable as having the highest rates for insolation, tuberculosis, and soft chancre; the Department of the Lakes having the highest rates for bronchitis, gonorrhea, syphilis, and skin diseases; the Department of the Missouri as having the lowest rate for typhoid fever and the highest for rheumatism; the Department of Dakota as having the highest rates for influenza and pneumonia and the lowest for tuberculosis and dysentery; the Department of Texas as having the highest rates for malaria and the lowest for bronchitis; the Department of the Colorado as having the highest typhoid fever rate; the Department of California as having the highest rate for dysentery and the lowest for influenza, and the Department of the Columbia as having the lowest rate for malaria, less than one-tenth that of the Department of Texas, and the lowest rate for rheumatism.

Admissions, losses, and noneffectiveness, United States, by departments.

		Mean strength.	Ratios per 1,000 of mean strength.												Average number of days lost.			
			Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
											From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
			From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Department of the East	White	13,126	1,217.96	724.06	17.29	11.20	3.96	1.68	21.25	12.88	36.56	27.89	18.71	14.62	13.34	10.96	6.83	9.43
	Colored	5	2,600.00	2,000.00	......	......	......	......	......	......	19.73	10.96	12.06	7.67	7.20	2.77	4.40	2.20
	Total	13,131	1,218.49	724.55	17.29	11.20	3.96	1.68	21.25	12.88	36.56	27.89	18.71	14.62	13.34	10.95	6.83	9.42
Department of the Gulf, white (only)		3,131	1,234.11	695.30	24.91	15.01	3.83	1.28	28.74	16.29	44.18	38.69	21.29	18.26	16.12	13.07	7.77	11.18
Department of the Lakes, white (only)		2,700	1,620.74	1,032.59	79.63	69.26	4.44	2.59	84.07	71.85	63.62	41.45	40.90	22.26	23.22	14.33	14.93	14.46
Department of the Missouri	White	5,799	1,407.66	815.14	23.62	17.76	5.52	2.41	29.14	20.17	37.03	27.78	19.09	15.14	13.52	9.60	6.97	8.55
	Colored	2,279	1,046.07	570.87	39.05	28.52	7.02	3.07	46.07	31.59	32.32	23.58	14.51	11.09	11.80	11.28	5.30	9.28
	Total	8,078	1,305.64	746.22	27.98	20.80	5.94	2.60	33.92	23.40	35.70	26.60	17.80	13.99	13.03	9.98	6.50	8.71
Department of Dakota	White	1,791	1,250.70	730.32	27.36	18.98	6.70	2.23	34.06	21.21	46.21	36.29	22.92	19.08	16.87	13.49	8.37	11.46
	Colored	775	1,061.94	632.26	6.45	5.16	12.90	9.03	19.35	14.19	26.69	22.40	15.05	12.88	9.74	9.15	5.49	8.69
	Total	2,566	1,193.68	700.70	21.04	14.42	8.57	3.90	29.61	18.32	40.32	32.10	20.54	17.20	14.71	12.33	7.50	10.70
Department of Texas	White	2,875	1,225.39	704.00	14.95	7.65	7.30	4.17	22.25	11.82	38.66	32.25	17.49	15.22	14.11	11.52	6.38	9.07
	Colored	269	1,022.30	587.36	......	......	14.87	11.15	14.87	11.15	33.64	20.91	17.00	11.69	12.28	12.01	6.20	10.56
	Total	3,144	1,208.02	694.02	13.68	7.00	7.95	4.77	21.63	11.77	38.22	31.28	17.44	14.91	13.95	11.55	6.37	9.17
Department of the Colorado, white (only)		2,234	1,308.86	802.15	25.51	20.14	4.03	1.79	29.54	21.93	38.50	30.51	21.75	17.67	14.05	10.74	7.94	9.90
Department of California, white (only)		4,510	1,207.98	716.18	15.74	10.20	4.21	1.77	19.95	11.97	30.76	20.73	15.26	11.15	11.23	9.29	5.57	7.78
Department of the Columbia, white (only), excluding Alaska		2,849	1,018.60	578.45	24.22	19.31	3.86	2.11	28.08	21.42	36.39	31.58	18.98	16.85	13.28	13.04	6.93	11.98
General hospitals in the United States, white and colored		491	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
United States (continental), excluding Alaska.	White	39,506	1,267.08	750.65	34.07	25.59	5.70	2.94	39.77	28.53	48.25	39.12	28.04	23.32	17.61	13.90	10.23	13.63
	Colored	3,328	1,051.08	589.54	31.50	23.74	11.40	6.91	42.97	30.65	35.38	27.35	19.06	15.78	12.91	12.28	6.96	11.80
	Total	42,834	1,250.29	738.13	33.88	25.45	6.14	3.25	40.02	28.70	47.26	38.20	27.34	22.74	17.25	13.80	9.98	13.55

Special diseases by departments.

	Ratio per 1,000 of mean strength.										
	Department of the East.	Department of the Gulf.	Department of the Lakes.	Department of the Missouri.	Department of Dakota.	Department of Texas.	Department of the Colorado.	Department of California.	Department of the Columbia, excluding Alaska.	General hospitals, United States.	Total.
Mean strength	13,131	3,131	2,700	8,078	2,566	3,144	2,234	4,510	2,849	491	42,834
Alkoholismus acutus (including delirium tremens)	41.81	24.59	19.63	14.85	15.59	20.04	28.20	26.16	38.96	34.62	28.27
Bronchitis acuta	68.54	41.52	86.30	43.58	51.44	22.26	74.75	83.82	48.44	79.42	59.28
Cholera Asiatica	....	....	....	....	....	....	....	....	....	....	....
Cholera nostras	.91	....	....	....	.78	.64	....	....	....	....	.37
Diphtheria et croup	.23	....	....	2.48	....	2.23	....	.22	.35	2.04	.77
Dysenteria	3.27	7.35	3.33	5.20	2.73	5.41	6.71	10.64	3.51	20.37	5.23
Erysipelas	.38	1.28	2.22	.99	....	.64	2.24	.67	1.76	4.07	.93
Febris intermittens (malaria)	31.99	43.76	52.21	49.64	16.37	120.87	12.53	43.46	11.93	36.66	41.95
Febris recurrens	....	....	....	....	....	....	....	....	....	....	....
Gonorrhea	103.19	156.50	197.41	96.81	139.91	127.23	72.07	119.73	120.04	120.16	117.21
Hernia	4.57	1.60	32.96	5.32	3.90	1.27	7.16	5.99	5.62	14.26	6.46
Influenza	44.17	49.51	22.96	32.44	63.91	40.72	42.08	22.39	45.63	18.33	39.34
Insolatio (Hitzschlag, coup de chaleur)	.08	.64	....	.12	....	....	....	....	.35	....	.11
Meningitis cerebro-spinalis epidemica	.30	....	.74	....	....	.95	....	....	....	2.04	.23
Morbilli	9.98	8.31	6.30	2.72	.39	.32	4.92	2.00	3.51	....	5.32
Parotitis epidemica	9.60	11.50	28.15	22.16	1.56	2.23	8.51	18.85	31.59	20.37	14.75
Pleuritis	3.12	3.19	2.59	1.86	2.34	3.18	3.13	3.55	4.21	18.33	3.11
Pneumonia crouposa sive lobaris	2.59	3.19	1.85	3.34	4.68	2.54	5.37	3.99	4.21	2.04	3.25
Rheumatismus articulorum	13.17	15.97	19.63	27.73	26.50	12.72	22.39	15.30	11.93	52.95	18.37
Scarlatina	.38	....	.37	.25	....	....	....	....	....	....	.19
Scorbutus	....	.32	....	....	....	....	....	....	....	....	.02
Syphilis	28.94	43.44	49.63	27.11	19.49	34.36	23.28	30.16	18.95	34.62	30.02
Trachoma	.69	....	.37	.50	....	.64	....	.44	.70	....	.47
Tuberculosis pulmonum	2.74	6.39	2.96	4.46	1.95	3.82	3.13	4.43	5.97	28.52	4.09
Tuberculosis ceterorum organorum	.46	.64	.74	.37	1.17	....	1.34	1.11	.35	4.07	.63
Typhus abdominalis	5.41	2.24	5.93	.87	1.95	1.91	8.95	2.22	1.76	12.22	3.57
Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....
Ulcus molle (including adenitis venerea)	20.49	68.66	41.48	26.49	31.18	48.99	25.52	25.28	25.62	28.52	30.39
Variola	....	.32	....	.74	....	....	....	....	....	....	.16
Morbi auris	9.44	6.39	13.70	7.18	5.85	5.41	14.77	12.64	7.37	8.15	9.01
Morbi cordis	2.82	2.87	27.78	2.23	7.01	.64	2.24	4.66	2.11	20.37	4.69
Morbi cutis	33.89	28.43	76.30	17.83	42.09	22.58	19.69	41.24	22.46	14.26	31.85
Morbi mentis	1.07	1.60	1.48	2.35	.78	....	.90	3.10	1.05	12.22	1.61
Morbi oculi	16.00	13.41	97.78	18.70	21.82	14.63	20.14	21.96	15.09	8.15	22.41
Morbi systemat. urin. et sexual. (excluding venerie et syphilis)	16.30	14.69	14.44	13.25	13.25	12.40	13.88	20.18	18.25	34.62	15.64

DEPARTMENT OF THE EAST.

The post having the highest noneffective rate was Fort Adams, 62.64, and the lowest, Fort Niagara, 7.99.

DEPARTMENT OF THE GULF.

Fort Dade had the highest noneffective rate, 83.75, of any post in this department, and Fort Caswell the lowest, 25.03.

DEPARTMENT OF THE MISSOURI.

Fort Riley appears to have had the lowest admission rate of the posts in this department, while Jefferson Barracks had the highest noneffective rate, accounted for by the fact that it is a rendezvous for recruits whose admission rate is always higher than that for seasoned soldiers. An improvement was noted in the health conditions of the entire department for the past year.

DEPARTMENT OF THE LAKES.

The admission of about 700 recruits to sick report at Columbus Barracks for observation as to fitness for service increased considerably the rate for the year in this department, yet the health of the command was regarded as very satisfactory, a marked decrease being noted in the percentage of admissions to sick report among the troops composing the regular organizations. Of the 215 men discharged on surgeon's certificate of disability, 156 were recruits discharged at Columbus Barracks for disabilities existing prior to enlistment.

DEPARTMENT OF DAKOTA.

The posts in this department having the highest and lowest constantly noneffective rates were Forts Snelling and Missoula, respectively; the high rate of the former post is at least in part accounted for by the fact that it is a recruit depot.

DEPARTMENT OF TEXAS.

Fort Clark had the highest admission rate and Fort Ringgold the lowest in this department.

DEPARTMENT OF THE COLORADO.

The posts in this department which had the highest and lowest noneffective rates were Whipple Barracks and Fort Apache, respectively.

DEPARTMENT OF CALIFORNIA.

This department had the lowest noneffective rate, as it did in 1904.

DEPARTMENT OF THE COLUMBIA.

The admission rate, as in 1904, was lower than in any other department.

The following tables are arranged to show the posts having the highest and lowest ratios for admission and noneffectiveness:

Posts having the lowest admission and noneffective rates.

	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Lowest admission rates from all causes.																	
Fort Niagara, N. Y	267	258.43	123.60	....	....	3.75	....	3.75	....	10.03	7.99	5.02	4.31	3.66	14.16	1.83	14.82
Madison Barracks, N. Y	465	705.37	333.33	17.20	4.30	10.75	2.15	27.95	6.45	20.53	14.11	8.51	6.44	7.49	10.62	3.11	9.32
West Point (soldiers' hospital), N. Y	493	778.90	555.78	20.28	14.20	8.11	4.06	28.39	18.26	21.24	16.25	12.67	9.71	7.75	9.95	4.62	8.32
Plattsburg Barracks, N. Y	734	790.19	420.98	19.07	17.71	2.72	1.36	21.79	19.07	26.99	22.10	13.19	10.76	9.85	12.47	4.81	11.43
Fort Brady, Mich	216	805.56	435.18	37.04	13.89	....	....	37.04	13.89	35.43	30.48	17.76	15.70	12.93	15.10	6.48	14.89
Lowest admission rates, excluding injuries, etc.																	
Fort Niagara, N. Y	267	258.43	123.60	....	....	3.75	....	3.75	....	10.03	7.99	5.02	4.31	3.66	14.16	1.83	14.82
Madison Barracks, N. Y	465	705.37	333.33	17.20	4.30	10.75	2.15	27.95	6.45	20.53	14.11	8.51	6.44	7.49	10.62	3.11	9.32
Fort Warren, Mass	222	909.91	396.40	9.01	4.50	....	....	9.01	4.50	38.24	32.24	11.91	10.46	13.95	15.34	4.35	10.97
Plattsburg Barracks, N. Y	734	790.19	420.98	19.07	17.71	2.72	1.36	21.79	19.07	26.99	22.10	13.19	10.76	9.85	12.47	4.81	11.43
Fort Brady, Mich	216	805.56	435.18	37.04	13.89	....	....	37.04	13.89	35.43	30.48	17.76	15.70	12.93	15.10	6.48	14.89
Lowest noneffective rates from all causes.																	
Fort Niagara, N. Y	267	258.43	123.60	....	....	3.75	....	3.75	....	10.03	7.99	5.02	4.31	3.66	14.16	1.83	14.82
Madison Barracks, N. Y	465	705.37	333.33	17.20	4.30	10.75	2.15	27.95	6.45	20.53	14.11	8.51	6.44	7.49	10.62	3.11	9.32
West Point (soldiers' hospital), N. Y	493	778.90	555.78	20.28	14.20	8.11	4.06	28.39	18.26	21.24	16.25	12.67	9.71	7.75	9.95	4.62	8.32
Fort Hamilton, N. Y	480	854.17	533.33	4.17	....	2.08	....	6.25	....	21.94	17.21	11.34	8.69	8.01	9.38	4.14	7.76
Fort Robinson, Nebr	510	841.17	447.06	25.49	15.69	7.84	7.84	33.33	23.53	23.17	13.80	9.57	6.06	8.46	10.06	3.49	7.82
Lowest noneffective rates, excluding injuries, etc.																	
Fort Niagara, N. Y	267	258.43	123.60	....	....	3.75	....	3.75	....	10.03	7.99	5.02	4.31	3.66	14.16	1.83	14.82
Madison Barracks, N. Y	465	705.37	333.33	17.20	4.30	10.75	2.15	27.95	6.45	20.53	14.11	8.51	6.44	7.49	10.62	3.11	9.32
Fort Robinson, Nebr	510	841.17	447.06	25.49	15.69	7.84	7.84	33.33	23.53	23.17	13.80	9.57	6.06	8.46	10.06	3.49	7.82
Fort Hamilton, N. Y	480	854.17	533.33	4.17	....	2.08	....	6.25	....	21.94	17.21	11.34	8.69	8.61	9.38	4.14	7.76
Fort Harrison, Mont	301	1,056.48	558.14	....	....	13.29	6.64	13.29	6.64	26.75	25.16	11.60	10.71	9.76	9.24	4.24	7.59

Posts having the highest admission and noneffective rates.

	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Highest admission rates from all causes.																	
Jefferson Barracks, Mo	709	2,782.79	1,332.86	76.16	71.93	1.41	....	77.57	71.93	72.22	38.02	31.06	18.25	26.36	9.05	11.34	8.51
Columbus Barracks, Ohio	889	2,634.42	1,809.90	183.35	177.73	6.75	5.62	190.10	183.35	117.37	64.75	90.97	41.89	42.84	16.26	33.20	18.35
Key West Barracks, Fla	263	1,923.95	1,441.06	15.21	15.21	....	....	15.21	15.21	42.34	27.95	31.91	22.76	15.45	8.03	8.44	8.08
Fort Ethan Allen, Vt	945	1,863.49	1,033.86	20.11	9.52	3.17	2.12	23.28	11.64	51.66	24.55	22.89	10.84	18.86	10.12	8.35	8.08
Fort Myer, Va	625	1,848.00	950.40	27.20	14.40	1.60	1.60	28.80	16.00	58.56	47.93	27.11	23.25	21.37	11.56	9.99	10.41
Highest admission rates, excluding injuries, etc.																	
Columbus Barracks, Ohio	889	2,634.42	1,809.90	183.35	177.73	6.75	5.62	190.10	183.35	117.37	64.75	90.97	41.89	42.84	16.26	33.20	18.35
Key West Barracks, Fla	263	1,923.95	1,441.06	15.21	15.21	....	....	15.21	15.21	42.34	27.95	31.91	22.76	15.45	8.03	8.44	8.08
Jefferson Barracks, Mo	709	2,782.79	1,332.86	76.16	71.93	1.41	....	77.57	71.93	72.22	38.02	31.06	18.25	26.36	9.05	11.34	8.51
Fort D. A. Russell, Wyo	652	1,544.48	1,188.65	12.27	6.14	16.87	9.20	29.14	15.34	26.95	23.08	18.89	16.28	9.84	6.37	6.89	5.80
Fort Washington, Md	406	1,637.93	1,172.42	22.17	12.32	....	....	22.17	12.32	46.07	37.83	24.73	20.78	16.82	10.27	9.03	7.70
Highest noneffective rates from all causes.																	
Columbus Barracks, Ohio	889	2,634.42	1,809.90	183.35	177.73	6.75	5.62	190.10	183.35	117.37	64.75	90.97	41.89	42.84	16.26	33.20	18.35
Jefferson Barracks, Mo	709	2,782.79	1,332.86	76.16	71.93	1.41	....	77.57	71.93	72.22	38.02	31.06	18.25	26.36	9.05	11.34	8.51
Fort Oglethorpe, Ga	535	1,457.94	656.07	20.56	14.95	3.74	1.87	24.30	16.82	64.11	62.07	22.65	21.62	23.40	16.05	8.27	12.60
Fort Adams, R. I	376	1,305.85	890.96	29.26	23.94	....	....	29.26	23.94	62.64	55.76	46.36	42.25	22.87	17.51	16.92	18.99
Fort Snelling, Minn	884	1,364.25	760.18	33.93	26.88	6.79	2.26	40.72	27.14	59.34	50.81	28.18	25.07	21.66	15.88	10.29	13.53
Highest noneffective rates, excluding injuries, etc.																	
Columbus Barracks, Ohio	889	2,634.42	1,809.90	183.35	177.73	6.75	5.62	190.10	183.35	117.37	64.75	90.97	41.89	42.84	16.26	33.20	18.35
Fort Adams, R. I	376	1,305.85	890.96	29.26	23.94	....	....	29.26	23.94	62.64	55.76	46.36	42.25	22.87	17.51	16.92	18.99
Key West Barracks, Fla	263	1,923.95	1,441.06	15.21	15.21	....	....	15.21	15.21	42.34	27.95	31.91	22.76	15.45	8.03	8.44	8.08
Jefferson Barracks, Mo	709	2,782.79	1,332.86	76.16	71.93	1.41	....	77.57	71.93	72.22	38.02	31.06	18.25	26.36	9.05	11.34	8.51
Fort Baker, Cal	249	1,626.51	1,012.05	16.06	8.03	4.02	4.02	20.08	12.05	52.40	43.88	28.66	25.41	19.12	11.75	10.46	10.33

Fort Niagara, which last year had the lowest admission rate, this year occupies the same enviable position, and in addition has the lowest noneffective and discharge rate and, excluding injuries, venereal diseases, and alcoholism, no death; Madison Barracks ranks next to Fort Niagara.

Columbus Barracks and Jefferson Barracks have the highest admission and noneffective rates, but as they are recruiting depots their rates are hardly comparable with other posts. Excluding the recruiting depots, Key West Barracks has the highest admission rate, Fort Oglethorpe the highest noneffective rate from all causes, and Fort Adams the highest noneffective rate, excluding injuries, venereal diseases, and alcoholism.

EFFECT OF AGE AND LENGTH OF SERVICE.

The following tables show the effect of age and length of service upon rates for disease:

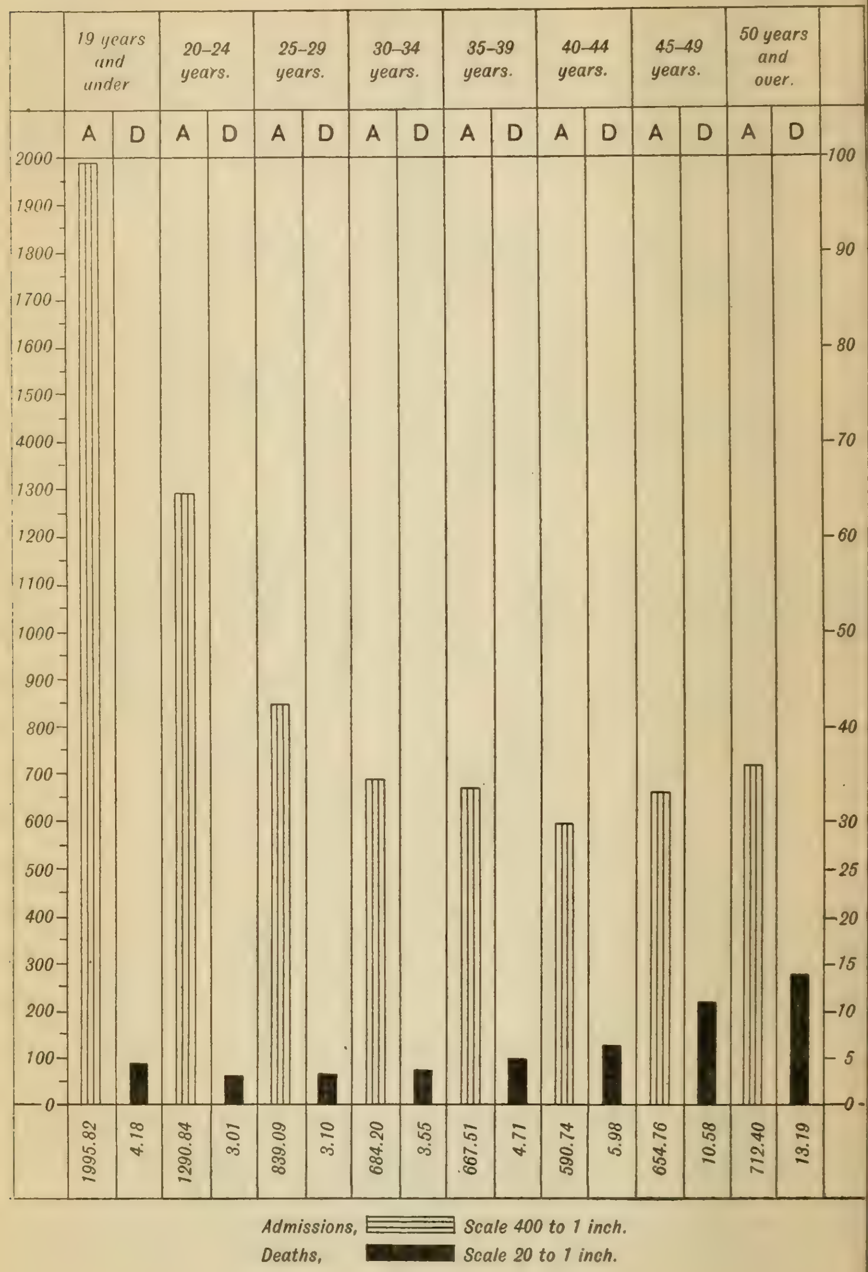
Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year........	11,149	16,536	683	31	603.09	1,483.18	61.26	2.78	54.09
1 to 2 years..........	7,403	8,142	231	21	326.62	1,099.82	31.20	2.84	41.12
2 to 3 years..........	5,702	3,719	67	11	147.15	652.23	11.75	1.93	25.81
3 to 4 years..........	3,623	3,320	83	15	149.04	916.37	22.92	4.14	41.14
4 to 5 years..........	3,240	2,566	64	14	110.91	791.98	19.75	4.32	34.23
5 to 10 years.........	7,632	5,888	106	30	233.47	771.49	13.89	3.93	30.59
10 years and over...	4,085	2,568	62	30	127.24	628.64	15.18	7.34	31.15
Total	42,834	42,739	1,296	152	1,697.52	997.78	30.26	3.55	39.64

Age.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under.	479	956	44	2	29.29	1,995.82	91.86	4.18	61.15
20 to 24 years	17,948	23,168	677	54	860.53	1,290.84	37.72	3.01	47.95
25 to 29 years	13,548	11,368	351	42	468.82	839.09	25.91	3.10	34.60
30 to 34 years	5,627	3,850	142	20	175.14	684.20	25.24	3.55	31.13
35 to 39 years	2,758	1,841	41	13	82.89	667.51	14.87	4.71	30.06
40 to 44 years	1,339	791	24	8	40.46	590.74	17.92	5.98	30.21
45 to 49 years	756	495	10	8	23.33	654.76	13.23	10.58	30.87
50 years and over...	379	270	7	5	17.05	712.40	18.47	13.19	44.99
Total	42,834	42,739	1,296	152	1,697.52	997.78	30.26	3.55	39.64

The admission rate was highest for soldiers 19 years old and under and fell rapidly up to the age of 45, after which there was a slight rise; the discharge for disability and noneffective rates had the same characteristics, only the rise started at 40 years of age; the death rate was lowest at age 20 to 24 years, after which there was a steady rise.

From the point of view of length of service all the rates were highest in the first year and the lowest in the third year.

Chart showing the relative admission and death ratio per thousand of mean strength to age fo disease in the United States proper.



EFFECTS OF SEASON.

The following table shows the movement of sick by months:

Month.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal diseases, etc.)
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	44,302	120.85	0.61	51.08	77.67	0.45	30.15	Influenza, 507; tonsillitis, 463; acute bronchitis, 443.
February ...	43,274	105.61	.44	51.11	70.02	.25	31.35	Influenza, 524; tonsillitis, 382; acute bronchitis, 355.
March	43,081	104.48	.44	47.56	64.00	.30	28.37	Tonsillitis, 305; influenza, 279; acute bronchitis, 271.
April	42,588	100.85	.31	46.49	58.37	.23	27.27	Tonsillitis, 300; acute bronchitis, 212; muscular rheumatism, 116; coryza, 112.
May	42,627	93.95	.54	43.27	52.78	.28	25.16	Tonsillitis, 187; acute bronchitis, 137; malaria, 135; diarrhea, 133.
June........	42,715	89.20	.54	40.23	51.15	.27	23.30	Diarrhea, 261; malaria, 158; acute bronchitis, 126; furuncles, 113; tonsillitis, 109; dyspepsia, 105.
July	41,251	106.93	.82	44.30	61.88	.27	24.22	Diarrhea, 384; malaria, 203; dyspepsia, 178; furuncles, 132; tonsillitis, 115.
August	42,981	118.74	.47	48.10	74.26	.19	28.15	Diarrhea, 502; malaria, 366; dyspepsia, 224; furuncles, 154; acute bronchitis, 140; muscular rheumatism, 115; tonsillitis, 112.
September..	42,897	104.70	.42	49.79	62.27	.19	29.72	Malaria, 355; diarrhea, 283; dyspepsia, 161; furuncles, 144; acute bronchitis, 138.
October.....	42,472	102.79	.75	49.01	56.46	.38	27.91	Malaria, 241; diarrhea, 152; acute bronchitis, 179; tonsillitis, 147; furuncles, 125
November..	42,181	97.70	.33	47.93	52.72	.21	26.25	Tonsillitis, 207; acute bronchitis, 199; muscular rheumatism, 111; malaria, 110.
December ..	43,657	103.74	.48	48.13	55.68	.16	26.26	Tonsillitis, 303; acute bronchitis, 248; muscular rheumatism, 110; malaria, 103.
Total..	42,834	1,250.29	6.14	47.26	738.13	3.25	27.34	Tonsillitis, 2,728; acute bronchitis, 2,539; diarrhea, 2,219; malaria, 1,940; influenza, 1,685; dyspepsia, 1,449; muscular rheumatism, 1,305; furuncles, 1,237; coryza, 1,085.

The highest admission and death rates were recorded in January; the highest noneffective rate in February; the lowest admission and noneffective rates were in June, the lowest death rate in December.

THE INFLUENCE OF RACE.

None of the colored troops having served outside the limits of the United States proper during the year, a comparison of their rates with those for white troops is given here. The admission, discharge for disability, death and noneffective figures for colored troops from all causes were 1,051.08, 31.50, 11.40, and 35.38, respectively, compared with 1,267.08, 34.07, 5.70, and 48.25 for white troops. As usual, therefore, all the rates for colored troops, except the death rate, were lower than for white.

The admission and noneffective rates for colored troops were lower than for 1904, but their discharge for disability and death rates were much higher, 31.50 and 11.40, respectively, as compared with 18.07 and 7.79 for 1904.

The cause of the abnormally high discharge rate is to be found in the discharge at one post of a large number of colored recruits on account of alleged disability from corns and bunions, together with an unusually high rate for tuberculosis.

The increased death rate for the year was almost entirely due to external causes.

For disease only, the admission, discharge, and constant noneffective rates were better for colored than for white troops, but the death rate of the former class was more than twice as great as for the latter. The death rate among the colored troops was greater than among the white in nearly all classes of diseases, but especially so in the case of diseases of the respiratory and circulatory systems; the rate for tuberculosis was four and one-half times as great; for pneumonia, more than double, and aneurism tenfold.

It is noticeable that while there were 22 deaths from drowning among the white troops, there were none among the colored; that suicide was more than twice as common among the former, and that death from homicide was about twelve times as frequent among the latter.

The relative prevalence of certain special diseases among white and colored troops, with the admission rates per thousand for each race, are shown in the following table:

Disease.	White.	Colored.
Venereal diseases	180.78	154.44
Tonsillitis	64.90	49.28
Bronchitis, acute and chronic	63.98	45.97
Diarrhea, including enteritis	53.51	31.55
Malaria	47.71	16.53
Influenza	40.70	23.14
Alcoholism	31.98	9.31
Muscular rheumatism and myalgia	29.45	42.67
Hemorrhoids	8.35	15.02
Rheumatism, subacute and chronic	6.02	15.62
Measles	5.59	2.10
Dysentery	5.37	3.61
Tuberculosis	4.58	6.31
Typhoid fever	3.80	.90
Pneumonia	3.19	3.91
Frostbite and freezing	.86	12.02
Smallpox	.05	1.50

The relative importance of special diseases as causes of death, with the death rates per thousand for each race, was as follows:

Disease.	White.	Colored.
Tuberculosis	0.68	3.00
Pneumonia	.38	.90
Typhoid fever	.30	.30
Alcoholism	.28	....
Venereal diseases	.03	.30
Bronchitis, acute and chronic	.03	....
Malaria	.03	....
Influenza	.03	....

SANITATION.

The sanitary conditions at posts in the United States have continued to improve, tho owing to limited appropriations it has not been possible to accomplish as much in this direction as had been hoped for.

Among the more important defects have been overcrowding, particularly of guardhouses, defective ventilation, water supplies deficient in quantity or defective in quality, and inadequate facilities for the disposal of wastes.

The reestablishment of the United States military prison at Fort Leavenworth will no doubt result in the relief of the congested condition of the guardhouses.

The defects in the quality of water supplies are largely the result of the increasing pollution of surface waters thruout the country, a danger which is shared with the civil communities. Efforts are being made to secure pure water supplies by the introduction of filtration plants, the search for artesian waters, and in some cases by the installation of distilling plants. Experiments have been made with a view to obtaining a field-water sterilizer that could be used with any sort of fuel; a German sterilizer of this type was tried but was not satisfactory. It is thought, however, that the problem will soon be solved.

Besides the four posts at which biological sewage-purification plants were in operation last year, this system has been introduced this year at the United States Army general hospital, Fort Bayard, N. Mex.; at none of the plants except that at Fort Bliss, Tex., has the system given satisfaction during the year. The unsatisfactory condition was not, however, due to inherent faults in the system; faulty construction and overworking have been the sources of most of the trouble.

During the last two years investigations have been conducted at all posts with a view of determining the distribution of disease-carrying mosquitoes. At the 136 posts in the United States and Alaska mosquitoes have been reported as present in 122, absent in 2; 12 posts made no report.

The distribution of the different genera of mosquitoes was as follows:

Anopheles present.—Hot Springs, Ark.; Fort Hamilton, N. Y.; Fort Leavenworth, Kans.; Fort Niagara, N. Y.; Fort Reno, Okla.; Fort Snelling, Minn.; Fort Sill, Okla.; Fort Wadsworth, N. Y.; Fort Washington, Md.; Fort Brown, Tex.; Benicia Barracks, Cal.; Fort Clark, Tex.; Fort Sam Houston, Tex.; Fort Apache, Ariz.; Boise Barracks, Idaho; Fort Dade, Fla.; Fort Du Pont, Del.; Fort Fremont, S. C.; Fort Hancock, N. J.; Fort Howard, Md.; Fort Hunt, Va.; Jackson Barracks, La.; Jefferson Barracks, Mo.; Fort Logan H. Roots, Ark.; Madison Barracks, N. Y.; Fort Missoula, Mont.; Fort Morgan, Ala.; Fort Monroe, Va.; Presidio of San Francisco, Cal.; Fort St. Philip, La.; Fort Smallwood, Md.; West Point, N. Y.; Washington Barracks, D. C.; Fort Barrancas, Fla.; Fort Caswell, N. C.; Fort Screven, Ga.; Fort Ringgold, Tex.

Stegomyia present.—Fort Barrancas, Fla.; Fort Bliss, Tex.; Fort Brown, Tex.; Fort Fremont, S. C.; Fort Columbia, S. C.; Hot Springs, Ark.; Jackson Barracks, La.; Key West Barracks, Fla.; Fort McIntosh, Tex.; Fort Moultrie, S. C.; Fort McPherson, Ga.; Fort Ringgold, Tex.; Fort Sam Houston, Tex.

No mosquitoes found.—Fort Walla Walla, Wash.; Fort Mason, Cal.

No reports received.—Fort Bayard, N. Mex.; Fort D. A. Russell, Wyo.; Fort Des Moines, Iowa; Fort Douglas, Utah; Fort Foster, Me.; Fort Greble, R. I.; Fort H. G. Wright, N. Y.; Fort Meade, S. Dak.; Fort Stevens, Oreg.; Fort Wayne, Mich.; Fort Wetherill, R. I.; Whipple Barracks, Ariz.

A general idea of the sanitary condition of the different posts in each military department may be gained from the following data taken from the sanitary reports and the annual reports of chief surgeons of departments:

DEPARTMENT OF THE EAST.

Fort Du Pont, Del.—Drainage and sewerage not satisfactory on account of the flat grounds and lack of slope in the mains; sewer outlet liable to be carried off by ice in winter or obstructed.

Fort Ethan Allen, Vt.—Water supply reported as being not more than sufficient for present needs. Work on a new water tower has been commenced.

Fort Hamilton, N. Y.—Many buildings at this post are old, decayed, and insanitary. Many others are located in a haphazard way without relation to a general plan and are unsuitable for their purpose. A board of officers has been convened and submitted a general scheme of reconstruction. The water which has been reported as of doubtful quality at times is sterilized. Some filling in and draining are necessary at this post.

Fort Hancock, N. J.—The filling in of mosquito-breeding swamps at this post is necessary. A board recently recommended the grading and sodding of a limited area of ground south of the post hospital and east of the projected new road, but owing to reduced appropriations consideration of the project has been deferred.

Fort Howard, Md.—Mosquitoes, including *Anopheles*, are very troublesome at this post.

Fort Hunt, Va.—The sewer outlet at this post is objectionable, not having been carried out far enough under the dock, so that it is in shallow water and gives off offensive smells. A new outlet should be provided when the new dock is constructed. The drainage is not entirely satisfactory, rain water running into two marshy places, one east, the other south of the post; both places should be reclaimed by ditching and filling.

Fort Jay, N. Y.—Barracks at this post are very old and unsatisfactory. A new hospital is very much needed, but must await completion of extension of area of Governors Island.

Madison Barracks, N. Y.—The water-closets in old barracks are in bad condition, due to structural defects and careless plumbing. The system of water-closets used in some of the new barracks, whereby flushing water enters the tank only when the closet is deprest, is very unsatisfactory and should be changed.

Fort McKinley, Me.—The water supply has at times proved insufficient. The question of increasing the supply is under consideration.

Fort Monroe, Va.—Three cases of typhoid fever, reported as having been contracted outside the post, occurred among the enlisted men during the period June 4 to 21, 1905.

Fort Mott, N. J.—Water supply unsatisfactory, it being mostly from a deep artesian well and containing a large proportion of iron and chlorides; that for drinking is obtained from surface wells. A distilling plant and reservoir now under consideration will remedy these defects.

Fort Myer, Va.—The water supply at this post is taken from the Potomac and filtered at the post; it is abundant and of excellent quality. The drainage is poor in some parts of the reservation. On account of the excessive rainfall it was impossible to prevent the breeding of mosquitoes last season. Fifteen cases of typhoid fever occurred during the period August 19 to October 25, 1905. Out of 12 cases admitted between August 19 and September 7, 7 belonged to the same troop, and 3 others, belonging to another organization, messed with this troop. From this fact it was believed to be a case of food infection, source undetermined. Three cases were admitted between October 8 and 25; one was a private of the hospital corps occurring from direct contact in nursing. The patients all recovered.

Fort Niagara, N. Y.—The water supply is taken from the Niagara River and is carefully sterilized before it is used. An attempt to obtain good drinking water by driven wells for this post has so far been unsuccessful. Sterilizing the water supply by fire can only be considered a makeshift at a post. An effort should be made to procure good water, either by wells or by filtering.

Fort Ontario, N. Y.—The water supply at this post is of doubtful quality, and for drinking and culinary purposes it is boiled before use. The surgeon states that the sewer empties at the edge of the lake instead of being carried out into deep water, as good hygiene requires; also that the surface drainage of the post empties into a large abandoned quarry near the shore of Lake Ontario. This quarry contains pools of stagnant, mosquito-breeding water. The filling in of this quarry is under consideration.

Plattsburg Barracks, N. Y.—The target range is reported unsatisfactory, in that it is marshy. The improvement of the target range is now under consideration.

Fort Porter, N. Y.—Water supplied this post is from the city system and apparently satisfactory, although pumped from the lake and unfiltered, there being no disease in the city of Buffalo attributed to it. Water for drinking purposes is boiled before use. The guardhouse is too small, the guard and prisoners being uncomfortably crowded. Measures should be taken to remedy this evil if the post is to be continued with the same garrison.

Fort Schuyler, N. Y.—Buildings old and in poor repair. Barracks overcrowded.

Fort Slocum, N. Y.—Additional barrack accommodation is necessary, also a new building for the examination of recruits. The crowding has been partly remedied by the transfer of a company to Fort Schuyler. Plumbing thruout the post is obsolete and in need of thoro overhauling. The sewer pipes in many places discharge contents short of low-water mark. The lighting of the post is by means of kerosene oil; electricity should be substituted.

Fort Totten, N. Y.—Nonmalarial mosquitoes reported as present in great numbers at this post. Drainage of stagnant waters and the free use of petroleum is necessary.

Fort Wadsworth, N. Y.—The casemate barracks at this post are leaky, poorly ventilated, poorly lighted, and generally insanitary. Outside modern barracks are highly desirable.

Washington Barracks, D. C.—Eleven cases of typhoid fever were reported during the period July 2 to October 19, 1905, with two deaths. Three of the cases were admitted from camp while at target practice at Saunders range, near Baltimore. No connection could be established between any of the cases. There were no local conditions at the post to account for the spread of the disease, except that it was prevalent in the District of Columbia. Water for drinking purposes is boiled before use.

Fort Washington, Md.—Malarial fever was prevalent during the late summer and fall, the large increase in the number of cases being due to an unusually heavy rainfall, the numerous deep ravines and gullies traversing the reservation, which it is difficult to drain, and the topography of the country immediately adjacent, which lends itself to the formation of pools of stagnant water.

DEPARTMENT OF TEXAS.

Fort Bliss, Tex.—The sanitary condition of this post is excellent and the climatic conditions most favorable to health. The buildings are modern, wastes of all kinds are removed by means of a sewer system, and the water supply is abundant and good. For the purposes of irrigation and a reserve water supply an additional tank, with a capacity of 75,000 gallons, has been requested for this station.

Fort Brown, Tex.—The buildings of the post are very old and in a very bad state of repair. While the health of the command has been good thruout the year, the discomforts of the men have been great on account of unsuitable accommodations and sanitary arrangements. The comfort of the men, which leads to contentment, efficiency, and reduction of desertions, is always worthy of consideration, especially in regions of tropical and humid climates. If a garrison is to be continued at this station, a modern post of brick or stone with slate or tile roof should be constructed, with conveniences and comforts arranged to meet the long heated period. A well-constructed sewer at this post is not available for use owing to the fact that certain brickwork at its outlet has given away, resulting in clogging of sewage. The excreta of the whole command is collected in galvanized iron or tin receptacles and disposed of by being emptied into the Rio Grande River. The water supply is taken from this river 3 miles below the town and distilled for drinking purposes.

Fort Clark, Tex.—The screening of this post is defective, the barracks and quarters are old, obsolete in character and unsuitable for further habitation unless extensive repairs are made. The officers' quarters are constructed of loose limestone without a cement foundation. As a result of this, from 3 to 4 feet of the lower walls are damp, and the occupants suffer from sore throat, rheumatism, bronchitis, influenza, etc. The barracks are overcrowded. The water supply is satisfactory, being pumped from a large natural spring in the vicinity. The excreta is deposited in a dry-earth system and removed to a suitable place.

Jackson Barracks, La.—The sanitary condition of the post is anything but good, but the health of the command during the year was excellent. The buildings are old, insanitary, obsolete in construction, and damp. The lower story of officers' quarters is scarcely habitable on account of the dampness. The drainage and sewerage of the post are defective. The water supply is taken from cisterns and also pumped from the Mississippi River. The river water is filtered and stored in a 15,000-gallon tank. Part of the night soil is disposed of by means of cesspools and a portion thru a sewer system. If this post is to be continued, modern quarters and barracks, with a thoro sewer system, should be constructed.

Fort Logan H. Roots, Ark.—The buildings at this station are modern and in good condition and fairly well protected by suitable wire screens. The water supply is being improved and will no doubt be satisfactory in a short while.

Fort McIntosh, Tex.—The barracks and quarters at this post are suitable and the sanitary condition is considered good. The water supply is satisfactory. At present excreta is removed by means of the dry-earth system and deposited on a remote section of the reservation. A sewer system for this post is in course of construction, and it is hoped to have lavatories, water-closets, urinals, bath tubs, etc., in connection with the sewer system installed before the next yellow-fever season.

Fort Reno, Okla.—The buildings of the post are old but in good condition, except the guardhouse, which is inadequate and not properly screened. The drinking water is obtained from springs and that used for ordinary purposes is pumped from wells. The sewer system in use is efficient.

Fort Ringgold, Tex.—The sanitary conditions at this post are excellent and the climate exceedingly healthful, notwithstanding the long heated period. The buildings are in good condition, the water supply is satisfactory, and the excreta is removed by means of a sewer system which is adequate in every respect.

Fort Sill, Okla.—The sanitary condition of this post may be regarded as good, tho the buildings are old and obsolete. The water supply obtained from springs and wells is satisfactory. The barracks are gloomy and not well lighted. As this reservation is one of the most valuable in the possession of the Government for military maneuvers, a modern post should be constructed and the old buildings abandoned if the garrison is to be continued. Disposal of sewage is satisfactory.

Fort Sam Houston, Tex.—The sanitary condition of this post may be regarded as excellent. The public buildings are in good condition, water is obtained from artesian wells, and the sewer system is satisfactory. During the year new quarters for servants were constructed and modern traps installed, thus doing away with the dry-earth system heretofore in use.

Fort St. Philip, La.—The buildings at this post are old and temporary in character, and except for the mild climate they would be scarcely suitable for habitation. The water is taken from the Mississippi River and distilled for drinking purposes. Excreta is disposed of partly by cesspools and partly by the dry-earth system.

Camp J. P. Story.—The Second Provisional Regiment of Light Artillery was mobilized at Fort Sill, Okla., about July 1, 1905, and consisted of 582 men and officers, under the command of Colonel Howe, Artillery Corps. The movement of the troops was not known to the department commander until within a few days of their arrival. No previous preparations had been made at Fort Sill for their reception, and they were at once placed in a camp totally lacking the necessary arrangements for the care of the sick, disposal of night soil, garbage, and swill, bathing facilities, water supply, kitchen and messing arrangements, altho it was known in advance that the duration of the camp was to be about four months.

The selection of the camp, made, so far as can be learned, without the recommendation of a medical officer, was very unsuitable and unhealthy, being located along the side of a creek which contained so much stagnant water that it was impossible to oil it properly.

In view of the grave and costly errors experienced during the Spanish war and Philippine insurrection resulting from improper camp selection and preliminary preparation of sanitation it would seem advisable for the protection of the lives and health of our troops that a paragraph be inserted in regulations requiring the organization of a board of officers which shall include one or more medical officers, to select permanent camp sites and make necessary preparations, sanitary and domestic, before they are occupied, as should have been the case at Camp Story.

The record of malarial diseases contracted by the men of the command, without counting the numerous cases treated not on sick report or who were given the quinine prophylactic treatment, is as follows: August, 24; September, 68; October, 26. In all probability the subsequent admissions to sick report of this command from malaria on return to their proper stations would double the number reported.

In view of the large number of malarial cases and the insanitary camp site, the surgeon recommended the use of mosquito bars for the men, the officers being already provided. The commanding officer of the camp replied that the recommendation was impracticable in this camp and did not seem necessary. When called upon to explain why he deemed mosquito bars unnecessary for the men he stated "that mosquitoes have not been bad here at any time since camp was established and the malarial cases few. The sick report, which on August 18, 1905, numbered 44, has steadily diminished and now numbers 16, all of which indicates that for this camp there was no need of mosquito bars after the date of this communication (October 2) that was worthy of consideration."

In view of the large number of malarial cases taken on sick report it is very evident that Colonel Howe was mistaken in his official statement that the cases were few and that the sick report, as far as malarial diseases were concerned, had steadily diminished.

DEPARTMENT OF THE LAKES.

Fort Sheridan, Ill.—The ventilation of the guardhouse at this post is unsatisfactory and should be remedied. Repeated attention has been called to the defective plumbing, which is of lead, very old, and liable to frequent leaks. Repairs have been made from time to time, which have served a temporary purpose only.

Columbus Barracks, Ohio.—The hydrant water at this post is hardly ever free from typhoid infection, and with one or two exceptions the nine cases of typhoid fever which occurred during the past six months were caused by drinking water from that source. Well water and boiled hydrant water are furnished for drinking purposes, and notices are posted at the faucets cautioning the men, and they are also warned against the use of unboiled hydrant water in the weekly lectures. Recommendation was made that a plant be erected supplying the post with water from tubular wells already put down in the northeast corner of the reservation if upon examination it was found that the supply from that source is sufficient for all purposes. The danger from the city water could thus be avoided. Both the company and recruit barracks at this station are old and not provided with proper modern ventilation.

Fort Wayne, Mich.—A new guardhouse has been completed at this post and is a model building for its purpose.

At other posts in the department the sanitary defects have been of a minor character and have received favorable action.

DEPARTMENT OF CALIFORNIA.

Alcatraz Island, Cal.—The buildings now used as a prison should be replaced by a modern sanitary structure. New buildings for troops at this station are being prepared, which will relieve in a measure the overcrowding at the post.

Fort Mason, Cal.—Some method of heating should be installed in the bath house, as it is detrimental to health to bathe therein during the winter season under present conditions.

Fort McDowell, Cal.—The herd of cattle belonging to Mr. P., at this post, has finally been examined and, having been found to be infected with tuberculosis, has been removed from Angel Island. This dairy has been a source of contention in this department for a number of years, but it has never before been possible to accomplish its removal or to subject it to sanitary supervision. The water supply was impaired and the health of the command endangered by the large herd wandering over it and by the untidy character of the stables in which the cattle were kept.

Benicia Barracks, Cal.—The water supply at this post is unsatisfactory and it is hoped that the reconstruction of the post, so as to protect the health of the command in this particular, may be accomplished. The general drainage is poor, the gutters and spouts for rain water and sewer connections for kitchen wastes are faulty and allow collections of water and slops under several of the occupied buildings. It is understood that the entire remodeling of the post is now in contemplation.

Depot of casuals and recruits.—The buildings at this depot are in need of repair and should be either abandoned or rebuilt. When built the structures were intended only for temporary occupancy. They should be replaced by more suitable buildings. It is believed that the unattractiveness of these quarters in inclement weather accounts for a large number of the desertions occurring at this station.

Fort Miley, Cal.—The disposal of sewage is satisfactory so far as the post itself is concerned, but as the outlet of the sewer from two of the batteries empties into the sand just off the reservation it is thought that some action should be taken to connect this sewer with the post sewer and to prevent contamination of the land in view of its prospective use as a residence district.

DEPARTMENT OF DAKOTA.

Fort Assinniboine, Mont.—The water supply at this post has been unsatisfactory for some time past, due to a failure of the supply. Every effort has been made to have deeper wells driven, and the surgeon reports that finally money has been appropriated and that active steps have been taken to improve the water supply. The quantity of the supply of water at this post has been inadequate, and an analysis made in the office of the Surgeon-General shows it to have been of poor quality.

Fort Harrison, Mont.—The hospital building at this post is inadequate. There has been no important change in the sanitary condition of this post during the year.

Fort Keogh, Mont.—The sanitary condition of this post is satisfactory.

Fort Lincoln, N. Dak.—There has been no important change in the sanitary condition of this post during the past year.

Fort Missoula, Mont.—The clearing and draining of a small swampy island adjacent to the post which was thickly covered with brush, is reported to have resulted favorably in eliminating to a great extent the troubles resulting from great swarms of mosquitoes which had infested the post during the summers of the preceding two years.

Fort Snelling, Minn.—The water supply at this post is reported as good and sufficient, but quite hard. The water is obtained from artesian wells.

Fort Yellowstone, Wyo.—The sanitary condition of this post is satisfactory.

DEPARTMENT OF THE COLORADO.

Fort Apache, Ariz.—Complaint has been made as to quantity and quality of the water supplied this post for some time. The water for household purposes for this post is pumped from a well 23 feet deep near the bank of the river, which has always given a sufficient quantity until the last summer, when, owing to the drought of several years' duration in Arizona, the yield became too small for the demands on it, and necessitated the pumping of some water from the river to increase the supply. Altho this water was run thru a filter bed before being pumped, it is believed to have been a very dangerous expedient to use it at all, the river being subjected to great contamination from the large number of Indians and others living on the agency above. This matter has been strongly represented, and estimates are now before the authorities for the construction of another well close enough to the existing one to be pumped by the same machinery and boilers. The water supply in the first well comes from fissures in rock, and from a careful consideration there is no doubt that it will be found in the proposed new well. It is strongly recommended that the appropriation of the necessary amount of money to dig the new well and put it in operation be made without delay, so that the necessity for using river water may not arise again. Work is just being finished on four new bath houses for the use of troops. They are so located that the men from seven different barracks have convenient access to them, and are equipped with modern bath tubs, water-closets, urinals, showers, etc., and the plumbing and heating outfits are of excellent quality and thoroly sanitary. The new sewer system is not entirely satisfactory.

Fort Douglas, Utah.—Building improvements have continued at this post during the year in pursuance of the elaborate plan for rebuilding the post adopted by the War Department in 1903. The climate is healthy and the entire surroundings of the post are favorable in every way. When the improvements in barracks, etc., contemplated are completed this will be one of the finest posts in the United States.

Fort Duchesne, Utah.—The new guardhouse and two bath houses with modern fixtures have added to the general sanitary condition of the post. The water pumped from the Uintah River is ample and of good quality.

Fort Huachuca, Ariz.—This post has been in a very satisfactory sanitary condition during the year, the cases of "diarrhea, acute," noticed in 1904, having materially decreased in number, no particular reason being discoverable for the change, the water, diet, etc., being as usual.

Fort Logan, Colo.—The condition of overcrowding noted in last report has continued during the past year. Two new barracks to accommodate one company of infantry each are needed to obviate the housing of one battalion of infantry in two barracks built to accommodate two troops of cavalry, as is now done. The old pattern insanitary sinks at this post have been rebuilt with modern plumbing and are now in a satisfactory and sanitary condition. A new crematory for the destruction of garbage has been introduced and is in successful use.

Whipple Barracks, Ariz.—This post, from its fine location and magnificent climate, should be one of the most healthy in the department. On the contrary, statistics for the year show it to be the most unhealthy. This is owing, to some extent, to an epidemic of typhoid fever occurring in August, in which eleven cases occurred on the reservation. The cause of the epidemic was traced directly to contamination of the water supply of the post caused by pumping into the reservoir water from an old well originally used as the only source of supply of the city of Prescott, Ariz., but which was used at this time owing to a break in the new source of supply from Del Rio Springs.

Fort Wingate, N. Mex.—This post has had no epidemic disease of any kind during the past year. A sudden outbreak of bowel trouble in midsummer was traced to some fault in the preparation of the food. There has been a plentiful supply of water during the year. The insanitary condition of the lavatories, urinals, and closets was remedied during the year by new construction.

DEPARTMENT OF THE MISSOURI.

Fort Crook, Nebr.—The water supply of this post is derived partly from deep springs and partly from an artesian well. It is a good, potable water, free from vegetable organic matter, but having potassium, sodium, magnesium, and other salts in excess. The general sanitary condition of the post and all public buildings, with the exception of the guardhouse, is excellent. The latter building is overcrowded.

Fort Des Moines, Iowa.—The sewerage system was completed in November and is highly satisfactory. The buildings and grounds are in excellent sanitary condition and the water supply is abundant and of good quality.

Jefferson Barracks, Mo.—The water supply is not safe for drinking purposes until boiled or otherwise sterilized. In February and May the recruit barracks were overcrowded, 231 men being quartered in a space intended for 130, the bunks being so close together as to touch. This condition has since been remedied.

Fort Leavenworth, Kans.—The sewage-disposal plant was instaled and put in operation about the first of the present year. The results obtained were in the main satisfactory, but as it is called upon to dispose of twice as much sewage as the estimated average, the very best results can not follow; nevertheless, it may now be said for the first time in many years that this post is not polluting its own and its neighbor's water supply. The water supply furnished by the Leavenworth waterworks thru the filtration plant is apparently of excellent quality. It is objectionable on account of the large amount of lime present, much of which, however, is removed by boiling. In December the surgeon recommended that the water be boiled, as bacteriological examination showed it to be of doubtful quality.

Fort Mackenzie, Wyo.—The new hospital and guardhouse are inadequate, the former in point of size having only one ward, with a capacity of six beds. The guardhouse is a small, poorly arranged brick structure, with insufficient floor and air space. The water supply derived from the new Government system, with intake in a canyon of the Big Horn Mountain, is abundant and pure.

Fort Meade, S. Dak.—The question as to the proper disposition of wastes was agitated at this post and the surgeon recommended the construction of a crematory, but the commanding officer disapproved the recommendation in view of the climate and moderate strength of the garrison. An improvement over former methods was noted in October, when an improvised crematory was constructed.

Fort Riley, Kans.—The surgeon reported that the use of bituminous coal at this station for furnace consumption was a menace to the health of the command, and condemned its use.

Fort D. A. Russell, Wyo.—All matters pertaining to sanitation at this post are in a atisfactory condition.

Fort Washakie, Wyo.—In March report was made that the privy vaults and cesspools were absolutely insanitary and plans were submitted for the relief of the condition.

DEPARTMENT OF THE GULF.

Fort McPherson, Ga.—The sanitary condition of this post as a whole is very good. A few minor defects are noted, such as replacing old and obsolete plumbing in the buildings first erected. A modern hospital adequate to the needs of this regimental post should be erected as soon as practicable.

Fort Oglethorpe, Ga.—The sanitary condition of this post is good. The septic tank will probably have to be enlarged to give entirely satisfactory results. The water supply, while ample and of good quality thus far, is under discussion. The advisability of sinking the wells deeper in order to prevent possible contamination is being considered. The new modern hospital is ample for the needs of the post.

Fort Morgan, Ala.—The sanitary and health conditions are reported as excellent at this post.

Fort Barrancas, Fla.—The sanitary condition of this post, considering its location, is very good and is being improved. Altho yellow fever prevailed in epidemic form in the town of Pensacola, Fla., a few miles distant, during the summer and fall, no case developed among the troops. This result no doubt is due to the constant and vigilant efforts on the part of the medical officers, sustained in their work by the commanding officer. Repairs and additions to the hospital are progressing.

Fort Dade, Fla.—The present sanitary condition of the post proper is reported good, altho the presence of a swamp near the post results in considerable annoyance from mosquitoes. Efforts have been made to secure drainage of it, but so far nothing has been done.

Fort De Soto, Fla.—The sanitary and health conditions are excellent.

Key West Barracks, Fla.—The sanitary condition of the post proper is excellent. The guardhouse is inadequate and prisoners' room is poorly ventilated.

Fort Screven, Ga.—The sanitary condition of this post is not entirely satisfactory, due to the natural location of the post. The additions and repairs to the hospital are well under way.

Fort Fremont, S. C.—The sanitary conditions of this post have been gradually improved during the year.

Fort Moultrie, S. C.—Considerable work has yet to be done to make this post entirely satisfactory from a sanitary point of view. A central dispensary was completed during the year and is now in use.

Fort Caswell, N. C.—The sanitary conditions at this post are satisfactory.

DEPARTMENT OF THE COLUMBIA.

Boise Barracks, Idaho.—Buildings are mostly old, but in fairly good repair. Police and drainage good; water supply excellent and ample.

Fort Casey, Wash.—Buildings are new and in good sanitary condition; grounds well policed and drained; sewerage is good and satisfactory, and the water supply has been excellent and ample since October, when a new plant of shallow wells was installed.

Fort Columbia, Wash.—Buildings are in excellent condition; grounds well policed; new drainage and sewer systems installed; water supply is excellent and ample.

Fort Flagler, Wash.—Buildings in good condition, with the exception of defective plumbing, most of which has been thoroly repaired, with the exception of the urinals in guardhouse, which are still very unsatisfactory; drainage is satisfactory, and the water has been excellent and ample since November, when the pipe line conveying water from the Olympic Mountains was completed.

Fort Lawton, Wash.—Buildings are in good condition and grounds are well policed. The natural slope and sandy soil affords excellent drainage; water supply is satisfactory.

Fort Stevens, Oreg.—Buildings and grounds are all in good condition; drainage, sewerage, and disposal of wastes are satisfactory, and the water supply is good and sufficient.

Vancouver Barracks, Wash.—Buildings well ventilated and grounds well policed; sewerage system is not satisfactory at all times, but the water supply is ample and of excellent quality.

Fort Walla Walla, Wash.—The buildings at this post, with one or two exceptions, are in poor condition; the grounds are well policed. The hospital and officers' quarters have a sewer system thruout, while the dry-earth system is used by the troops for the disposal of excreta. The water supply, while not of the best quality, is sufficient in quantity.

Fort Ward, Wash.—Buildings at this post are but temporary structures; grounds are thoroly policed. The method of disposal of wastes of all kinds is satisfactory, while a good quality of spring water is supplied for the needs of the post.

Fort Worden, Wash.—Buildings are in fair repair and the grounds are kept in good sanitary condition. The means available for the disposal of wastes and excreta are sufficient for the needs of the post, with the exception of the post exchange building, which has no sewer connection. The water supply since September has been ample and of fair quality, being piped from the Olympic Mountains.

Fort Wright, Wash.—Public buildings at this post are in a satisfactory condition and the grounds are kept thoroly policed. The methods employed for the disposal of all wastes are satisfactory. The water supply is good.

ALASKA.

The average mean enlisted strength of the troops serving in Alaska during the year was 854, composed of infantry, signal corps, and hospital corps, all white. Table I shows the admission, death, and noneffective rates, total and by months, with the prevailing diseases for each month, while Table II exhibits the total movement of sick by posts:

TABLE I.—*Effects of season.*

Month.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal, etc.).
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	904	81.86	......	35.22	39.82	......	22.16	Dyspepsia, 4.
February	891	53.87	......	36.71	37.04	......	24.33	Muscular rheumatism, 4; coryza, 3; acute bronchitis, 3; constipation, 3.
March	884	84.84	1.13	29.63	56.56	1.13	22.99	Dyspepsia, 8; muscular rheumatism, 7; constipation, 4; acute abscesses, 4.
April	886	90.29	2.26	30.55	56.43	......	21.82	Muscular rheumatism, 6; neurasthenia, 5; influenza, 3; acute bronchitis, 3; dyspepsia, 3.
May	881	88.53	......	35.41	52.21	......	26.07	Influenza, 5; furuncles, 4; muscular rheumatism, 4.
June	860	66.28	1.16	38.37	34.88	1.16	23.72	Acute bronchitis, 4; muscular rheumatism, 4; constipation, 3.
July	825	88.49	......	29.40	56.97	......	20.45	Muscular rheumatism, 8; coryza, 3.
August	833	90.03	1.20	28.69	55.22	1.20	19.90	Muscular rheumatism, 6; furuncles, 4; acute abscesses, 3.
September	813	81.18	2.46	26.52	61.50	2.46	18.61	Muscular rheumatism, 8; coryza, 7.
October	819	75.70	......	26.27	50.06	......	21.39	Muscular rheumatism, 8; acute bronchitis, 6; tonsillitis, 4.
November	830	80.72	......	26.38	45.78	......	16.10	Acute bronchitis, 8; tonsillitis, 8.
December	827	62.88	1.21	25.43	36.28	......	12.99	Muscular rheumatism, 3; acute abscesses, 3.
Total	854	944.97	9.37	30.80	581.97	5.86	20.95	Muscular rheumatism, 61; acute bronchitis, 35; dyspepsia, 32.

TABLE II.—*Influence of station.*

	Mean strength.	Ratios per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Fort Davis	83	722.89	409.64	....	....	....	....	....	....	14.69	12.74	8.55	7.92	5.36	7.42	3.12	7.62
Fort St. Michael	144	673.71	430.56	....	....	6.94	6.94	6.94	6.94	14.36	7.97	8.35	5.35	5.24	7.78	3.05	7.08
Fort Liscum	145	903.45	482.76	20.69	20.69	13.79	....	34.48	20.69	37.36	34.43	24.98	22.56	13.63	15.09	9.12	18.89
Fort W. H. Seward	226	840.71	553.10	22.12	17.70	4.42	....	26.54	17.70	28.55	25.14	20.94	19.54	10.42	12.40	7.64	13.82
Fort Egbert	127	1,015.75	669.29	7.87	7.87	23.62	23.62	31.49	31.49	37.73	20.66	27.25	17.43	13.77	13.56	9.94	14.86
Fort Gibbon	129	1,550.39	937.98	7.75	7.75	7.75	7.75	15.50	15.50	49.25	36.45	32.28	24.93	17.98	11.59	11.78	12.56
Total	854	944.97	581.97	11.71	10.54	9.37	5.85	21.08	16.39	30.80	14.03	20.95	7.41	11.24	11.90	7.65	13.14

From these tables it appears that Alaska was a remarkably healthy station for troops. The admission, death, discharge, and noneffective rates were 944.97, 9.37, 11.71, and 30.80, respectively, compared with 1,250.29, 6.14, 33.88, and 47.26 for the United States proper. While l the rates, except the death rate, which was higher, were much lower than for the United States proper, all the rates were higher than for last year. A study of the causes of death as shown in the following table indicates that the increased death rate was not due to preventable or climatic causes:

Cause of death.	Number of deaths.	Ratio per 1,000 of— Mean strength.	Ratio per 1,000 of— Total deaths.
DISEASES.			
Pulmonary tuberculosis	1	1.17	200.00
Abscess base of brain	1	1.17	200.00
Apoplexy	1	1.17	200.00
Mitral and aortic insufficiency	1	1.17	200.00
Exhaustion from exposure	1	1.17	200.00
Total	5	5.86	1,000.00
INJURIES.			
Poisoning, acute, from ingestion of bay rum	2	2.34	666.67
Gunshot, supposed to have been shot by Indians in self-defense	1	1.17	333.33
Total	3	3.51	1,000.00
Total for disease and injury	8	9.37	....

Twenty-four men were invalided home, an invaliding ratio of 28.10; of the invalided 8 were subsequently discharged for disability, 3 were sent to the Government Hospital for the Insane, 2 died, and only 4 were ultimately returned to duty. The largest factor in invaliding was tuberculosis. Details are given in the following table:

	Number of cases.	Percentage of total cases.	Surgeon's certificate of disability.	Duty.	Transferred to the insane asylum.	Deserted.	Died.	By expiration of service.	Remaining at end of year.
Tuberculosis	5	20.83					2		3
Insanity	3	12.50			3				
Nasal catarrh	2	8.33	1					1	
Hernia	2	8.33	2						
Otitis media (chronic)	2	8.33	2						
Defective teeth	1	4.17				1			
Epilepsy	1	4.17	1						
Rheumatism, muscular, chronic	1	4.17		1					
Cardiac irritability	1	4.17		1					
Opium poisoning	1	4.17	1						
Failing eyesight (chronic atrophy of optic nerve)	1	4.17	1						
Conjunctivitis	1	4.17							1
Cystitis	1	4.17		1					
Eczema (chronic)	1	4.17				1			
Atrophy, muscles of right shoulder	1	4.17		1					
Total	24	100.00	8	4	3	2	2	1	4
Disposed of per cent of total cases			33.33	16.67	12.50	8.33	8.33	4.17	16.67

Excluding injuries, venereal diseases, and alcoholism, the post having the highest admission and noneffective rates was Fort Gibbon, which in 1904 had the lowest; the post having the lowest rates was Fort Davis; the highest admission rate was noted in September, the highest noneffective rate in May, while the lowest rates occurred in December.

The next table shows the admissions and deaths for certain special diseases:

Special diseases, Alaska, 1905.

	Admitted.	Number of men represented by the admissions.	Died.	Ratio per 1,000 of mean strength.	
				Admitted.	Died.
Malarial fever	2	2	....	2.34	....
Fever, undetermined	1	1	....	1.17	....
Tuberculosis	9	7	1	10.54	1.17
Venereal diseases	46	37	....	53.86	....
Alcoholism	43	40	....	50.35	....
Frostbite and freezing	10	10	....	11.71	....
Dysentery	8	7	....	9.37	....
Diarrhea	17	16	....	19.90	....

As in 1904, no case of typhoid fever occurred at the posts in Alaska. There were only two admissions for malaria. Tuberculosis and alcoholism again had higher rates than in the United States proper; dysentery, which had a lower rate in Alaska in 1904, had a higher rate in 1905; and venereal diseases, which had a higher rate in 1904, had a lower one in 1905. The two admissions for malaria were at Forts Liscum and W. H. Seward, respectively.

PORTO RICO.

There has been no change in the garrison or the stations in this island since the last report.

The following table exhibits the movement of sick for the year (Porto Rican troops):

[Mean strength of command, 550.]

	From all causes.		Excluding injuries, veneral diseases, and alcoholism.	
	Total.	In hospital.	Total.	In hospital.
Ratio per 1,000 of mean strength:				
Admissions to sick report	1,405.45	....	920.00	....
Discharges on surgeon's certificate of disability	21.82	....	3.64	....
Deaths	5.45	....	3.64	....
Total losses	27.27	....	7.28	....
Noneffective from sickness	57.84	55.49	27.75	26.67
Average number of days lost:				
For each soldier	21.11	20.21	10.13	9.74
For each case	15.02	14.41	11.01	10.58

The admission and noneffective rates were lower than for 1904, but this was offset by a marked increase in the death and discharge rates, the total loss being nearly double that of 1904; the increased death rate, however, as shown in the next table, was not due to preventable causes: of the 12 discharges 7 were on account of syphilis, 2 for gonorrhea, and 1 each for pulmonary tuberculosis, rheumatism, and injury. The total rates for disease, except the death rate, were all higher for Porto Rican than for Filipino troops.

Cause of death.	Number of deaths.	Ratios per 1,000 of— Mean strength.	Ratios per 1,000 of— Total deaths.
DISEASE.			
Mitral stenosis	1	1.82	500.00
Rupture of subclavian artery, cause unknown	1	1.82	500.00
Total	2	3.64	1,000.00
INJURIES.			
Gunshot, suicidal	1	1.82	1,000.00
Total	1	1.82	1,000.00
Total for disease and injury	3	5.45	....

By reference to Table VIII, page 166, it will be seen that there were no cases of typhoid fever among the Porto Rican troops, but there was a marked increase in malarial diseases—admission ratio 178.19, against 120.37 for 1904; dysentery decreased from 14.82 to 3.64, and tuberculosis from 5.55 to 1.82; venereal diseases were practically unchanged.

The following table shows the seasonal prevalance of disease:

Month.	Mean strength.	Ratios per 1,000 of mean strength. All causes. Admissions.	All causes. Deaths.	All causes. Noneffective.	Exclusive of venereal diseases, alcoholism, and injuries. Admissions.	Exclusive of venereal diseases, alcoholism, and injuries. Deaths.	Exclusive of venereal diseases, alcoholism, and injuries. Noneffective.	Prevailing diseases (exclusive of venereal, etc.).
January	550	120.00	......	62.46	70.91	......	22.82	Influenza, 6; dyspepsia, 4; acute bronchitis, 3; acute articular rheumatism, 3.
February	550	67.27	......	59.15	50.91	......	25.52	Acute abscesses, 4; dyspepsia, 3.
March	551	127.04	......	44.67	101.63	......	26.81	Malaria, 9; muscular rheumatism, 8; acute bronchitis, 6; dyspepsia, 6.
April	550	140.00	......	48.73	100.00	......	31.03	Malaria, 11; dyspepsia, 7; acute bronchitis, 6; furuncles, 6; muscular rheumatism, 5.
May	549	107.47	......	49.59	72.86	......	23.39	Malaria, 9; muscular rheumatism, 6; acute articular rheumatism, 5; dyspepsia, 5.
June	550	81.82	......	39.69	60.00	......	17.57	Malaria, 6; influenza, 6; furuncles, 6; dyspepsia, 5.
July	554	144.40	......	49.49	95.67	......	32.67	Malaria, 9; dyspepsia, 9; acute bronchitis, 6; acute abscesses, 4.
August	552	112.32	......	71.24	74.27	......	35.59	Malaria, 9; dyspepsia, 5; acute bronchitis, 4; acute abscesses, 4; acute articular rheumatism, 3.
September	552	117.75	......	63.47	65.22	......	31.70	Malaria, 7; acute bronchitis, 4; dyspepsia, 4; acute abscesses, 4.
October	549	163.94	......	62.40	100.18	......	29.03	Malaria, 25; dyspepsia, 5; acute bronchitis, 4; acute abscesses, 3.
November	549	81.97	1.82	73.46	45.54	......	28.96	Malaria, 8; dyspepsia, 5; acute abscesses, 3.
December	548	140.51	3.65	69.34	82.12	3.65	27.37	Adenitis (nonvenereal), 4; acute bronchitis, 4; dyspepsia, 4; acute abscesses, 3.
Total	550	1,405.45	5.45	57.84	920.00	3.64	27.75	Malaria, 98; dyspepsia, 60; acute bronchitis, 38; acute abscesses, 29; muscular rheumatism, 25; furuncles, 27; influenza, 21; acute articular rheumatism, 21.

Excluding injuries, venereal diseases, and alcoholism the highest admission rate was recorded in March and the lowest in February.

The following table shows the relative prevalence of certain special diseases among Porto Rican and Filipino native troops:

Disease.	Admission rate per 1,000 mean strength.	
	Porto Rican troops.	Filipino troops.
Beriberi	0.00	35.93
Dhobie itch	.00	14.37
Dengue	.00	6.55
Tropical ulcer	.00	6.13
Pemphigus	.00	3.17
Yaws	.00	.63
Filariasis	1.82	.00
Influenza	38.18	1.69
Syphilis	67.27	6.76
Chancroid	129.09	9.29
Gonorrhea	178.18	43.73
Rheumatism, articular	45.45	6.34
Malaria	178.19	572.70
Dysentery	3.64	22.83

RECRUITING.

The following statement shows the number of Porto Ricans who applied for enlistment during the year 1905, the number accepted, and rejected on primary examination, with ratios per thousand:

	Number.	Ratio per 1,000 examined.
Examined	53	1,000.0
Accepted	45	849.1
Rejected on primary examination	8	150.9

The proportion of accepted recruits, 84.91, was considerably smaller than for 1904, when it was 94.02.

Owing to the reduction of the minimum age limit from 21 to 18 years the number of minors enlisted was much larger than last year.

The usual series of anthropometric tables are omitted this year, as the total number of recruits examined was too small to allow of scientific deduction.

HAWAII.

Hawaii ranks next after Alaska as the most healthful country in which American troops are serving, the relative admission and constantly noneffective rates for the two countries being 1,000 and 39.73, and 944.97 and 30.80, respectively. All the rates were better than for last year, except that there was one discharge for disability; there was no death.

The following table exhibits the movement of the sick for the year:

[Mean strength of command, 176.]

	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	Total.	In hospital.	Total.	In hospital.
Ratios per 1,000 of mean strength:				
Admissions to sick report	1,000.00		545.45	
Discharged on surgeon's certificate of disability	5.68		5.68	
Total losses	5.68		5.68	
Noneffective from sickness	39.73	33.76	21.59	18.84
Average number of days lost:				
For each soldier	14.50	12.32	7.88	6.87
For each case	14.50	12.32	14.45	12.60

The following table shows the admission rate for certain special diseases:

Special diseases, Hawaii, 1905.

	Admitted.	Number of men represented by the admissions.	Died.	Ratios per 1,000 of mean strength.	
				Admitted.	Died.
Malarial fever	1	1	....	5.68	....
Tuberculosis	1	1	....	5.68	....
Venereal diseases	27	....	....	153.41	....
Alcoholism	7	....	....	39.77	....
Diarrhea	6	....	....	34.09	....

It is notable that there was no admission for typhoid fever, undetermined fever, or dysentery.

The next table shows the seasonal prevalence of disease:

Month.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal, etc.).
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	206	106.80	......	32.42	72.82	......	18.17	Pharyngitis, 4; muscular rheumatism, 2.
February	191	78.54	......	33.28	62.83	......	20.57	Pharyngitis, 2.
March	176	68.18	......	23.28	62.50	......	17.23	Tonsillitis, 2.
April	178	50.56	......	24.53	28.09	......	14.98	None.
May	176	73.86	......	44.17	34.09	......	19.98	Acute bronchitis, 2; gastritis, 2.
June	171	111.11	......	57.31	64.33	......	31.97	None.
July	165	96.97	......	51.23	30.30	......	23.27	Do.
August	147	81.63	......	41.03	47.62	......	30.72	Do.
September	150	60.00	......	39.33	20.00	......	15.78	Do.
October	150	100.00	......	39.78	33.33	......	14.84	Do.
November	144	90.28	......	53.24	41.67	......	29.17	Furuncles, 2.
December	251	83.66	.....	42.80	39.84	.....	24.29	Dyspepsia, 2.
Total	176	1,000.00	......	39.73	545.45	......	21.59	Pharyngitis, 8; furuncles, 7; acute bronchitis, 5; dyspepsia, 5; gastritis, 5; tonsillitis, 4.

Excluding venereal diseases, alcoholism, and injuries, the highest admission rate was recorded in January and the highest noneffective rate in June, the lowest admission rate in September and the lowest noneffective rate in October.

The garrison at the close of the year consisted of four companies of the Tenth U. S. Infantry, which in July and December relieved the two companies of Coast Artillery. There was no change in the station of the command.

CHINA.

The mean strength of the command serving in China during the year was 110 enlisted men, a number too small to afford an accurate basis of comparison. The only station was the United States legation at Peking, Company B, Ninth U. S. Infantry, constituting the legation guard until September 13, when it was replaced by a detachment of marines, thus ceasing to be an army post.

The following table exhibits the movement of sick during the year:

[Mean strength of command, 110.]

	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	Total.	In hospital.	Total.	In hospital.
Ratios per 1,000 of mean strength:				
Admissions to sick report	1,590.91	....	881.82	....
Discharged on surgeon's certificate of disability	9.09	....	9.09	....
Deaths	9.09	....	9.09	....
Total losses	18.18	....	18.18	....
Noneffective from sickness	55.97	39.95	19.58	14.72
Average number of days lost:				
For each soldier	20.43	14.58	7.15	5.36
For each case	12.84	9.17	8.10	6.09

NOTE.—Troops withdrawn September 13, 1905; strength averaged for the year.

All the rates were higher than for last year and much higher than for the United States. For disease alone all the rates, except the constantly noneffective rate, were higher even than for the Philippine Islands.

The next table shows the admission rate for certain special diseases:

Special diseases, China, 1905.

	Admitted.	Number of men represented by the admissions.	Died.	Ratios per 1,000 of mean strength.	
				Admitted.	Died.
Malarial fever	18	....	....	163.64	....
Venereal diseases	48	....	....	436.36	....
Alcoholism	8	....	....	72.73	....
Dysentery	1	1	....	9.09	....
Diarrhea	10	....	....	90.91	....

It will be noted that there were no admissions for typhoid fever, tuberculosis, or pneumonia, but the rates for malaria, venereal diseases, and alcoholism were exceedingly high.

The following table shows the seasonal prevalence of disease:

Month.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal, etc.).
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	121	132.23	......	49.32	74.38	....	16.26	Tonsillitis, 5.
February	128	60.71	......	40.18	50.00	....	21.20	Tonsillitis, 8; malaria, 3.
March	171	99.41	......	54.89	52.63	....	16.41	Tonsillitis, 3.
April	168	184.52	......	87.30	89.28	....	24.40	Tonsillitis, 4; dyspepsia, 2.
May	171	76.02	5.85	63.00	23.39	5.85	10.94	None.
June	164	103.66	......	48.58	67.07	....	23.17	Malaria, 3; acute bronchitis, 2; appendicitis, 2.
July	163	208.59	......	55.21	141.11	....	34.83	Malaria, 8; diarrhea, 5; tonsillitis, 4.
August	163	128.83	......	57.19	55.21	....	15.44	Diarrhea, 3; dyspepsia, 3.
September	69	130.44	......	22.22	43.48	....	6.28	None.
October	.....	....	......	....	....	....	....	
November	.....	....	......	....	....	....	....	
December	.....	....	......	....	....	....	....	
Total	110	1,590.91	9.09	55.97	881.82	9.09	19.58	Tonsillitis, 24; malaria, 18; diarrhea, 10; acute bronchitis, 9.

Excluding injuries, venereal diseases and alcoholism, the highest admission rates were noted in July and the lowest in May.

SANITATION.

No defect in sanitation was reported during the year.

HEALTH OF TROOPS IN THE PHILIPPINE ISLANDS.

AMERICAN TROOPS.

All the rates, except the death rate for disease, were lower than in 1904.

The mean strength of the command was 11,057, against 11,996 for 1904. There were 17,688 admissions to sick report, 1 discharge for disability, 90 deaths, 321 invalided home, and 655.50 men constantly on sick report, equal to rates of 1,599.72, 0.09, 8.14, 29.03, 59.28, respectively, compared with 1,687.73, 0.17, 8.75, 38.93, and 65.88, the corresponding rates for 1904. Eight deaths occurred in the United States of men whose commands were in the Philippines and who had been invalided home. This would increase the total number of deaths to 98 and the ratio per thousand to 8.86. The discharge rate was of no consequence, as nearly all disabled men are sent to the United States for discharge.

For disease the principal causes of admission with ratios for each were venereal, 305.78; malarial, 261.55; diarrhea and enteritis, 133.31; dysentery, 63.67; furunculosis, 51.82, and dengue, 30.84. The principal causes of noneffectiveness were, venereal, 19.72; malarial fevers, 5.22; dysentery, 4.40, and diarrhea, 2.35; and the principal causes of death, malarial fevers, 0.63; dysentery, 0.63; typhoid fever, 0.27, and alcoholism, 0.27.

Under external causes there were 5 cases of sunstroke without a death and 14 deaths from drowning.

Deaths among American troops serving in the Philippine Islands.

Causes of deaths.	Number of deaths.	Ratios per 1,000 of— Mean strength.	Ratios per 1,000 of— Total deaths.
DISEASES.			
Dysentery (catarrhal 4, amebic 3)	7	0.63	162.79
Malarial fever (pernicious 5, intermittent estivo-autumnal 1, malarial cachexia 1)	7	.63	162.79
Typhoid fever	3	.27	69.77
Alcoholism (acute 2, chronic 1)	3	.27	69.77
Asiatic cholera	2	.18	46.51
Beriberi	2	.18	46.51
Tuberculosis, general	2	.18	46.51
Aneurism	2	.18	46.51
Appendicitis	2	.18	46.51
Cancer, intestinal	1	.09	23.26
Diabetes	1	.09	23.26
Anemia	1	.09	23.26
Meningitis, cerebral	1	.09	23.26
Paralysis, acute, ascending	1	.09	23.26
Angina pectoris	1	.09	23.26
Broncho-pneumonia	1	.09	23.26
Ulcers, multiple, gastric and duodenal	1	.09	23.26
Intestinal obstruction	1	.09	23.26
Hepatic abscess, multiple	1	.09	23.26
Peritonitis	1	.09	23.26
Nephritis, chronic interstitial	1	.09	23.26
Pyelitis	1	.09	23.26
Total	43	3.89	1,000.00

Deaths among American troops serving in the Philippine Islands—Continued.

Causes of deaths.	Number of deaths.	Ratios per 1,000 of— Mean strength.	Ratios per 1,000 of— Total deaths.
INJURIES.			
Gunshot (battle 15, suicidal 3, homicidal 3)	19	1.72	404.26
Drowning, accidental	14	1.27	297.87
Incised wounds (battle 6, homicidal 3)	9	.81	191.49
Fractures of skull 2 (1 by kick of horse, the other by flying beam in typhoon); of the spine 1 (by fall from native shack while drunk)	3	.27	63.83
Poisoning (carbolic acid), suicidal 1, ptomaine 1	2	.18	42.55
Total	47	4.25	1,000.00
Total for disease and injuries	90	8.14	....

Suicides, 4; homicides, 4; in action, 21.

TYPHOID FEVER.

The admission rate for typhoid fever, 2.80, was higher than that for 1904, when it was 1.92, but lower than for 1903. Cases were reported from 12 posts and all the islands except Leyte, Panay, and Jolo; nearly one-half of the cases occurred at the posts in and near Manila.

As was the case in 1904 over two-thirds of the cases occurred in soldiers under 30 years of age, and more than half of those in their first enlistment. The following statement shows the distribution of the cases:

Posts.	Mean strength.	Admissions.	Deaths.
Fort Wm. McKinley, Luzon	1,291	8	....
Posts in Manila, Luzon	1,102	7	....
Camp Wallace, Luzon	277	3	1
Camp Connell, Samar	384	3	1
Camp Keithley, Mindanao	880	2	....
Field, Luzon	532	2	....
Camp Jossman, Guimaras	561	1	....
Zamboanga, Mindanao	242	1	....
Malahi Island, Luzon	230	1	....
Field, Samar	568	1	....
Field, Cebu	16	1	....
Division Hospital, Manila, Luzon	86	1	1
Total	....	31	3

UNDETERMINED FEVERS.

The fevers which have been included under this heading, with the duration of the cases, are shown in the following table:

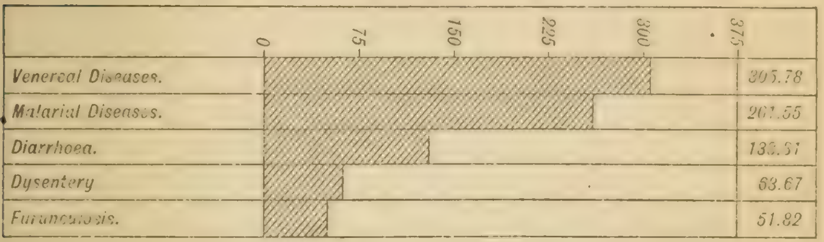
Fevers of undetermined causation.

	Number of cases.	Number of days.	Average number of days treated.
Ephemeral fever	134	583	4.35
Febricula	119	728	6.12
Fever, type undetermined	87	625	7.18
Simple continued fever	29	216	7.45
Thermic fever, mild	20	70	3.50
Febris undulans	[a]1	22	22.00
Total	390	2,244	5.75

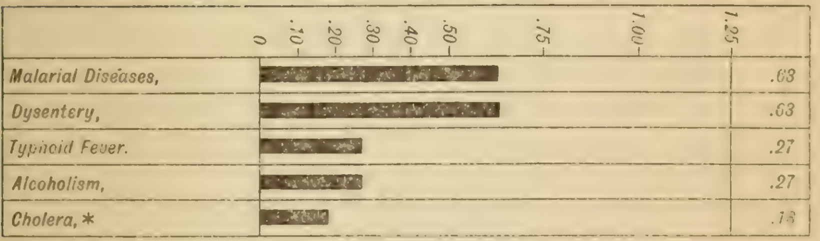
[a] Clerical error in classification, should be placed to Malta fever.

Charts showing the relative admission, death, and noneffective rates per thousand of mean strength for certain special diseases in the Philippine Islands (American troops).

ADMISSIONS.



DEATHS.



* Beriberi, general tuberculosis and appendicitis, same rate.

NONEFFECTIVE.

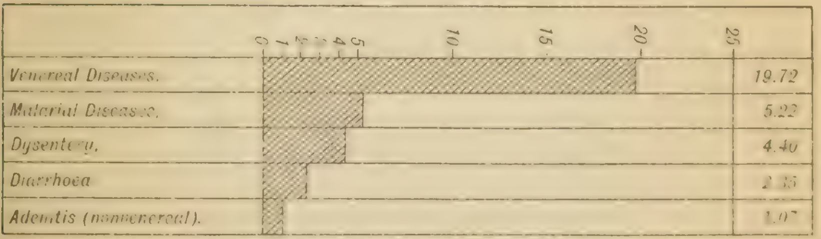


Chart showing the relative admission and death rates per thousand of mean strength for typhoid fever in the Philippine Islands by years (American troops).

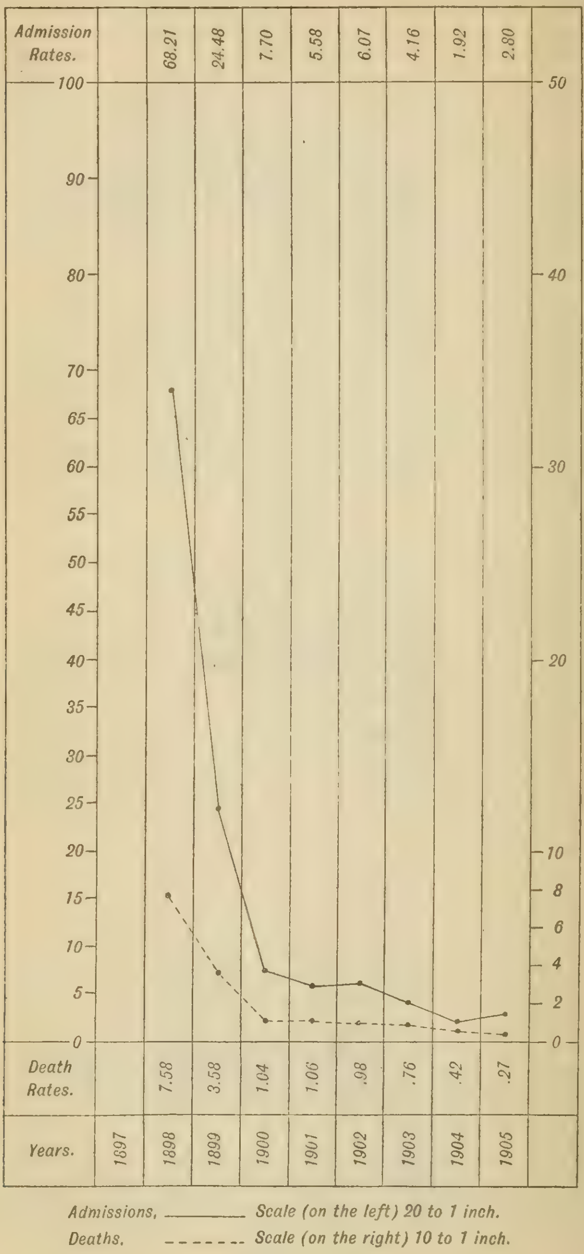
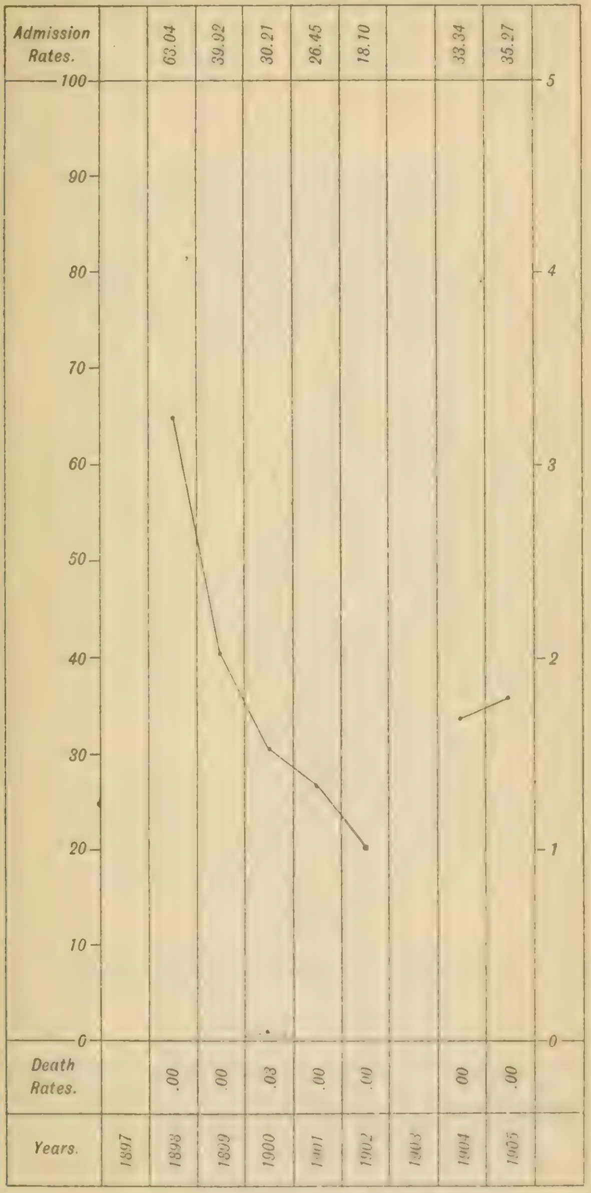


Chart showing the relative admission and death rates per thousand of mean strength for undetermined fevers, by years, in the Philippine Islands (American troops).



Admissions. ——— Scale (on the left) 20 to 1 inch.
Deaths. – – – – – Scale (on the right) 1 to 1 inch.

Number of days cases were treated.

Cases.	Days.	Cases.	Days.	Cases.	Days.	Cases.	Days.	Cases.	Days.
1	37	3	18	5	13	22	8	69	3
2	33	3	17	7	12	21	7	38	2
1	25	1	16	6	11	44	6	12	1
1	22	1	15	12	10	40	5		
2	20	4	14	13	9	82	4	Total (390)	2,244

MALARIA.

There was a decided increase in the ratios of admission and death from this cause, the respective rates being 261.55 and 0.63 for 1905, against 220.65 and 0.25 for 1904. The increase was evenly distributed all over the islands. In the Department of Luzon the highest rates were observed at Camps Wilhelm and Stotsenburg, 623 and 423, respectively; in the Department of the Visayas at Camps Jossman and Connell. In the Department of Mindanao the gratifying reduction noted in 1904 was followed by a decided and widespread increase in 1905.

This increase in a disease which is entirely preventable, and which last year caused seven deaths and an immense amount of noneffectiveness, should cause serious consideration as to the sufficiency of the preventive measures heretofore taken. These have been generally the use of mosquito bars, administration of quinine, drainage, clearing away of underbrush and water containers, and the use of petroleum. There has been some complaint as to the size and quality of the mosquito bars furnished by the Quartermaster's Department, but it is understood that those now being issued are more satisfactory, except in the size of the mesh, which should be 18 instead of 14.

It is deemed highly important that all barracks and quarters should be thoroly protected by wire screens, such measures having proven very effective in other malarial countries.

Inasmuch as a large percentage of the natives, especially native children, have been shown to harbor the malarial parasite, even when they show no symptom of disease, it is important that garrisons should be located as far as possible outside of native communities, and that natives should be kept away from the barracks of American troops.

SMALLPOX.

There were but 3 admissions and no death from smallpox.

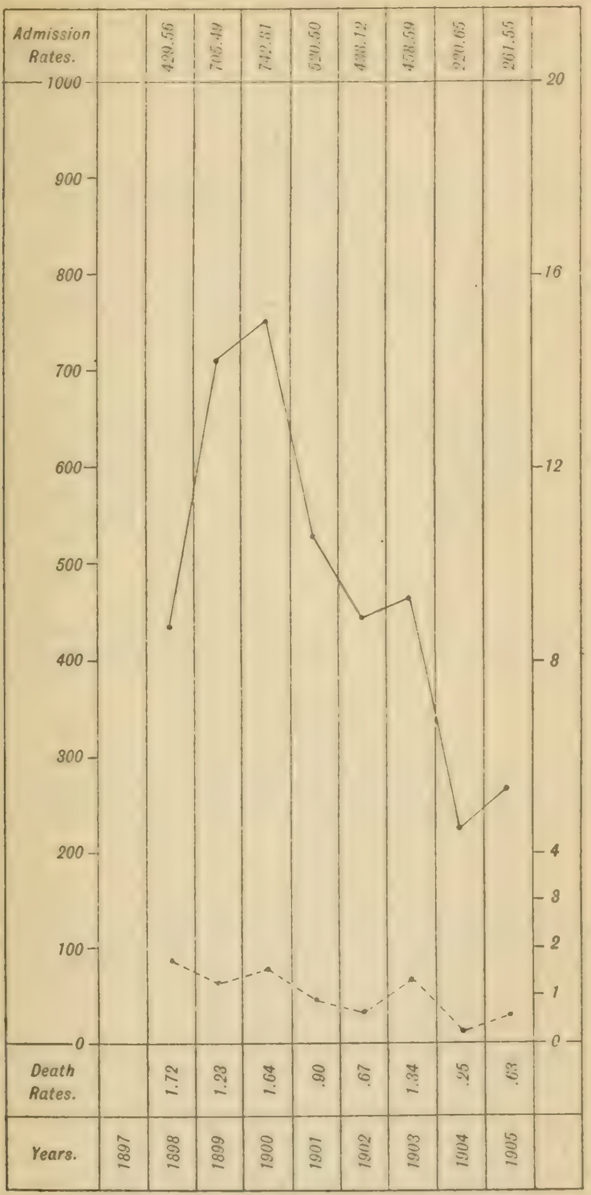
ASIATIC CHOLERA.

There were 9 admissions for cholera, with 2 deaths; all of the cases occurred in Luzon, and 6 of them at Fort William McKinley. At McKinley the disease was believed to have been introduced on infected bananas from a district where cholera was prevailing.

DYSENTERY.

All the ratios for dysentery were decidedly better than for 1904; the amebic type was reported as nearly forty times more frequent than the bacillary form.

Chart showing the relative admission and death rates per thousand of mean strength for malarial diseases in the Philippine Islands by years (American troops.)



Admissions, ———— **Scale (on the left) 200 to 1 inch.**
Deaths, — — — — **Scale (on the right) 4 to 1 inch.**

DIARRHEA AND ENTERITIS.

The ratios for these diseases were also much better than in 1904.

BERIBERI.

There were 5 cases of beriberi, with 2 deaths, as against 1 case last year; 2 of the cases occurred at Zamboanga, the others were scattered.

DENGUE.

The admission rate for this disease was little more than half of that for 1904.

MALTA FEVER.

One case of Malta fever was reported from Camp Gregg, P. I.

TRICHINOSIS.

There were 5 admissions for trichinosis, all at Camp Overton, Mindanao, all occurring in one regiment and within a period of two weeks. In 1 case the infection was stated to have resulted from eating wild pork; in the other cases the infection was stated to be unknown. It was not reported whether the diagnosis was based on finding the trichinæ.

VENEREAL DISEASES.

The admission rate for venereal disease was 305.78, compared with 297.42 for 1904; the noneffective rate, however, was only 19.72, against 21.88 for 1904.

TUBERCULOSIS.

The admission rate was 5.79, against 5.41 for 1904, and 4.59, the 1905 rate for white troops in the United States. The admission ratio for men under 30 years of age was nearly twice as great as that for soldiers over 30.

ALCOHOLISM.

The admission rate for alcoholism, 30.12, was much better than for 1904; better than in the United States and little more than half as great as in Alaska.

INSANITY.

The rates for this disease also were better than for last year, 1.45 and 1.75, respectively.

FILARIASIS.

One case of filarial lymphatic varix was reported.

The following tables show the movement of sick by islands and departments:

Chart showing the relative admission and death ratios per thousand of mean strength for diarrheal diseases in the Philippine Islands by years (including cholera nostras, dysentery, diarrhea, and enteritis).

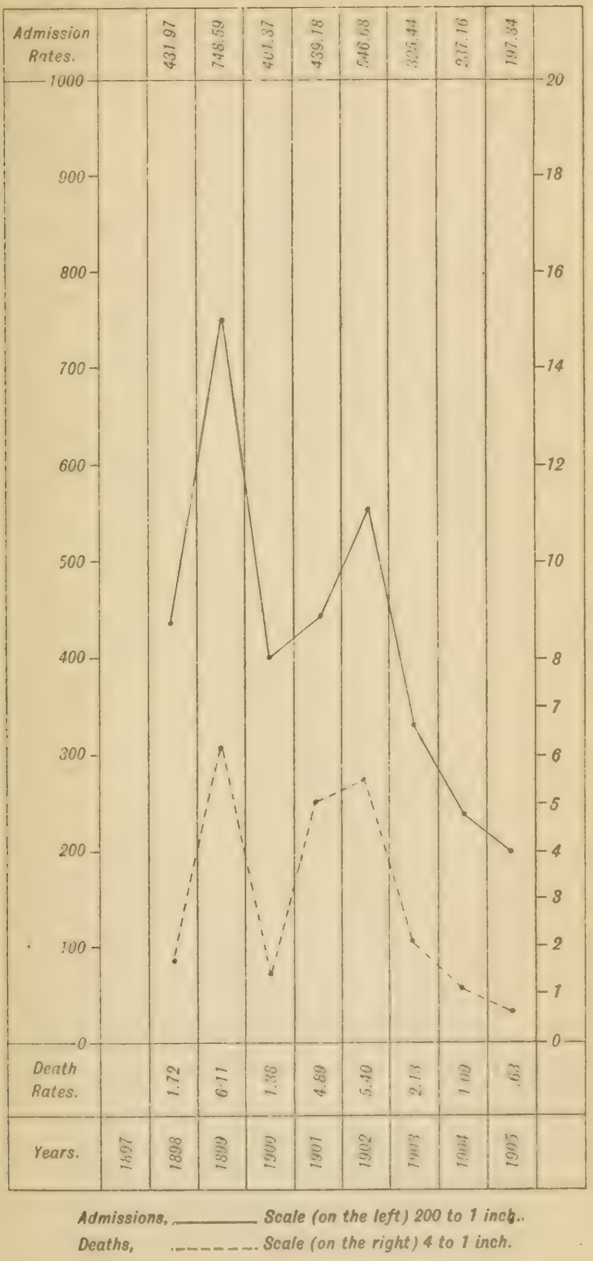


Chart showing the relative admission and death rates per thousand of mean strength for venereal diseases in the Philippine Islands by years (American troops).

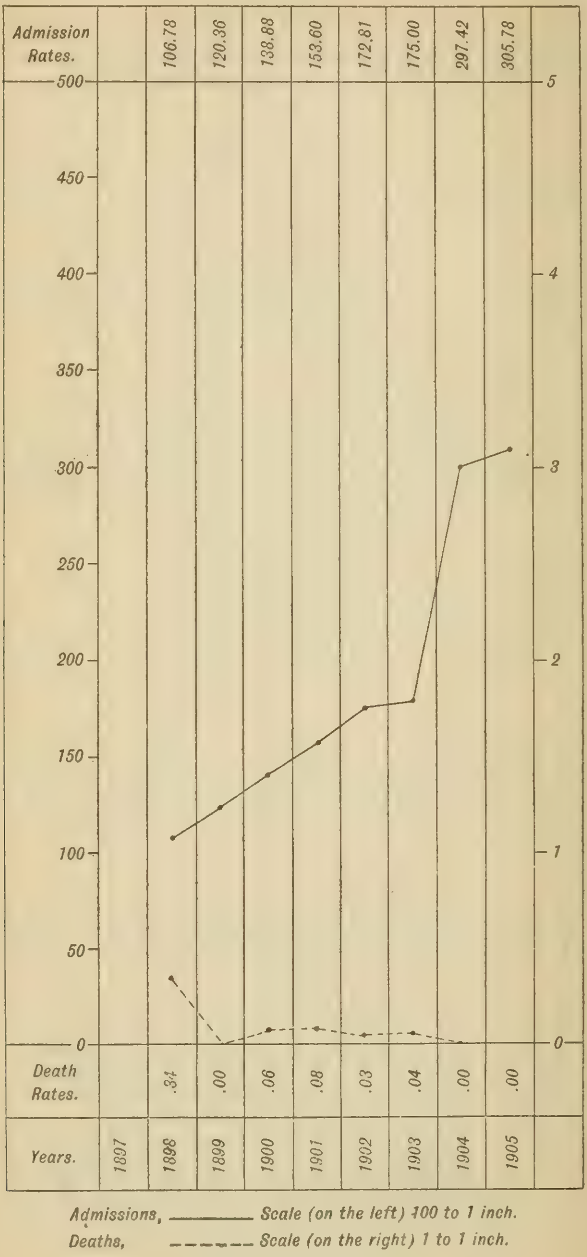


Chart showing the relative admission and death rates per thousand of mean strength for tuberculosis in the Philippine Islands by years (American troops).

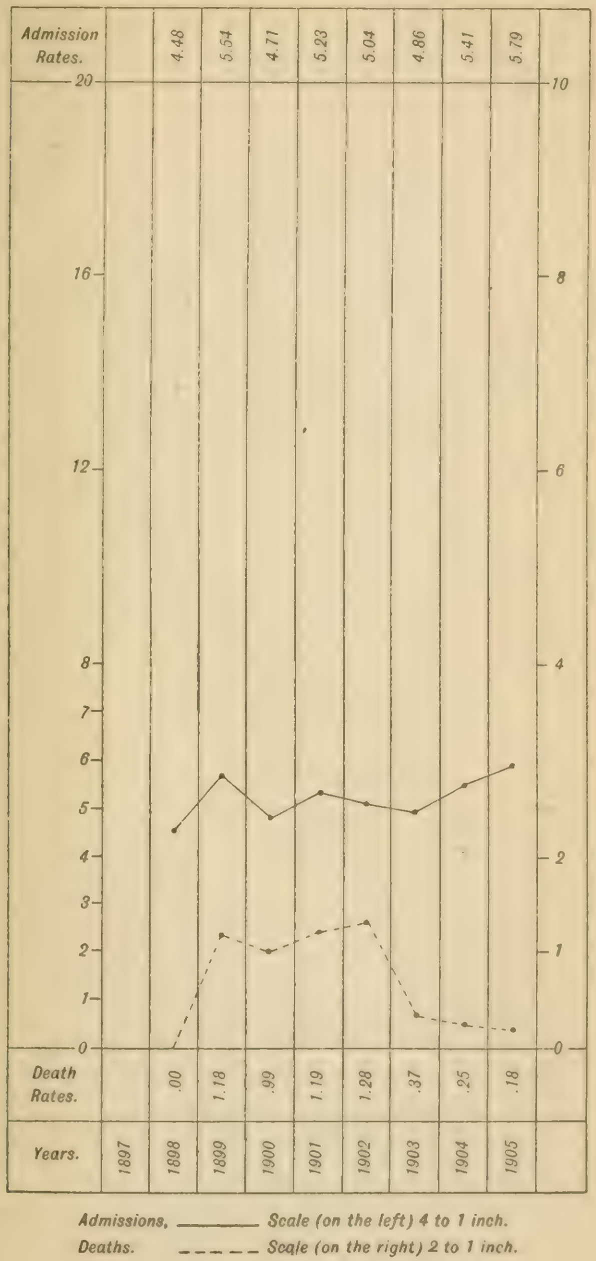


Chart showing the relative admission and death rates per thousand of mean strength for alcoholism in the Philippine Islands by years (American troops).

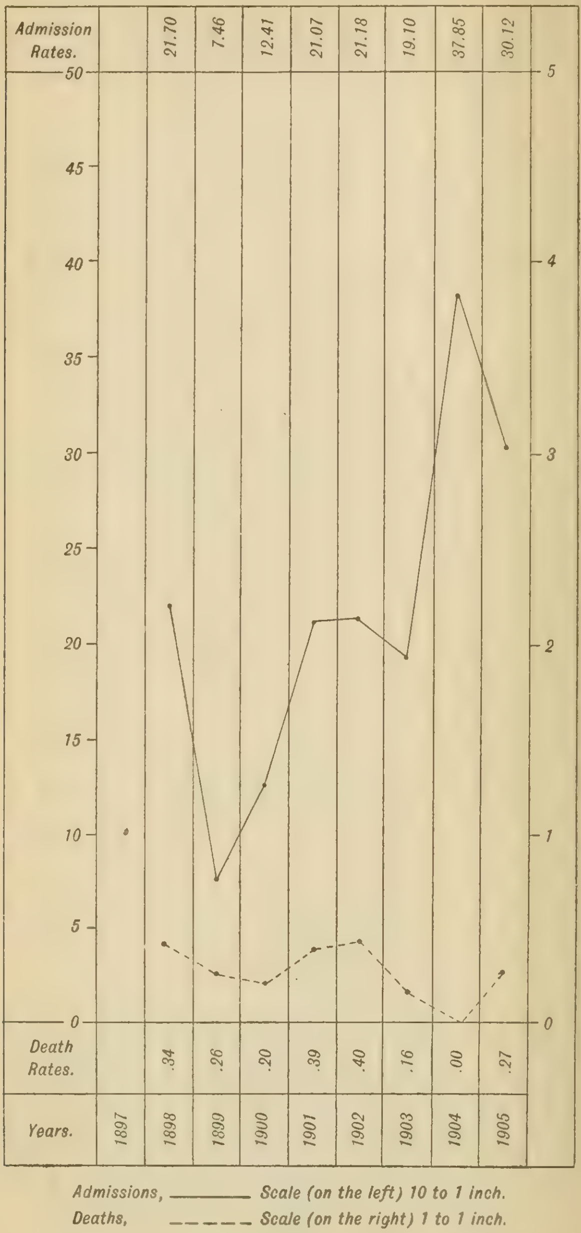
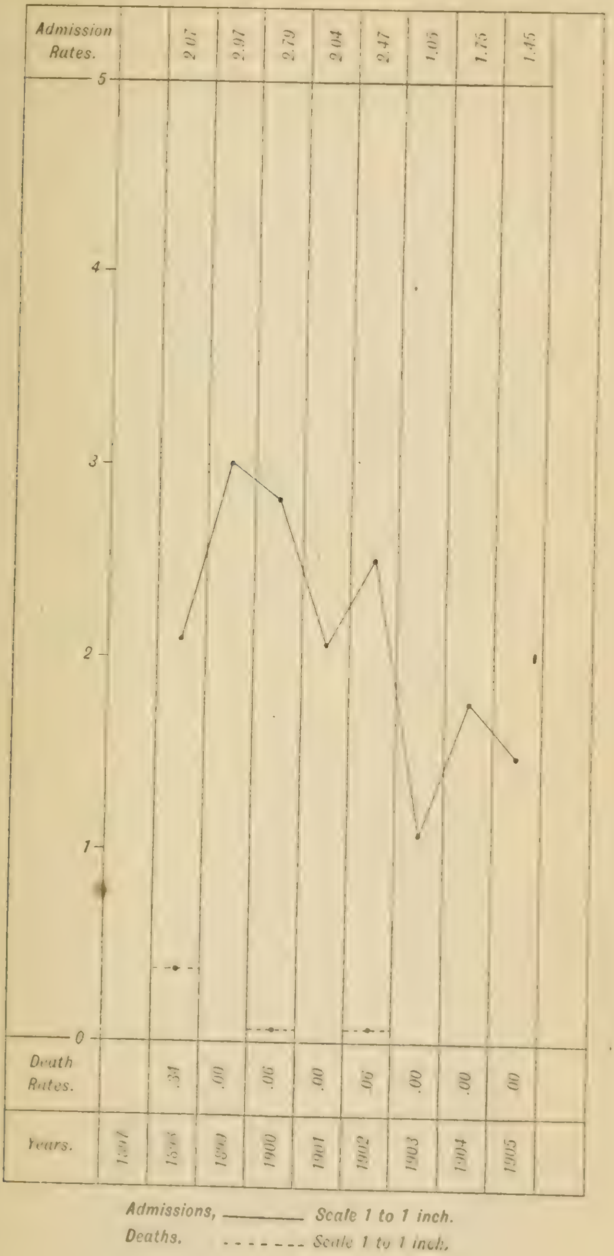


Chart showing the relative admission and death rates per thousand of mean strength for insanity in the Philippine Islands by years (American troops).



Movement of sick, by islands and departments.

Department and island.	Mean strength.	Ratios per 1,000 of mean strength.												Average numbers of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes	Excluding injuries, venereal diseases, and alcoholism.	From all causes	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier	For each case.	For each soldier	For each case.
Department and island of Luzon.	5,362	1,615.44	1,033.94	....	....	4.48	2.24	4.48	2.24	46.86	40.78	22.91	19.88	17.10	10.59	8.36	8.09
Department of the Visayas	2,302	1,830.15	1,142.05	....	....	5.65	3.91	5.65	3.91	62.66	54.71	29.78	25.59	22.87	12.50	10.87	9.52
Samar Island	952	2,095.59	1,453.78	....	....	6.30	2.10	6.30	2.10	60.09	46.99	30.87	23.84	21.93	10.47	11.27	7.75
Guimaras Island	561	1,721.93	964.35	....	....	8.91	8.91	8.91	8.91	70.63	67.64	30.91	29.62	25.78	14.97	11.26	11.70
Leyte Island	385	1,644.16	875.33	....	....	....	....	....	....	55.30	51.23	24.71	22.17	20.19	12.28	9.02	10.31
Cebu Island	219	1,242.01	812.79	....	....	....	....	....	....	36.18	26.11	19.84	15.23	13.21	10.63	7.24	8.91
Panay Island	185	1,875.68	1,021.62	....	....	10.81	10.81	10.81	10.81	98.37	96.30	43.02	41.80	35.90	19.14	15.70	15.37
Department of Mindanao	3,274	1,415.70	996.95	0.31	0.31	13.74	3.66	14.05	3.97	51.07	43.30	30.17	26.55	18.64	13.17	11.01	11.02
Mindanao Island	2,753	1,235.74	869.96	.36	.36	10.90	3.27	11.26	3.63	46.32	38.55	28.31	24.96	16.91	13.68	10.33	11.88
Jolo Island	521	2,366.60	1,667.95	....	....	28.79	5.76	28.79	5.76	76.18	68.40	40.01	34.98	27.81	11.75	14.61	8.76

For all causes the Department of the Visayas had the highest admission and noneffective rates, and the Department of Mindanao the highest death rate; the lowest admission was noted in the Department of Mindanao and the lowest death and noneffective rates in the Department of Luzon.

Excluding injuries, venereal diseases, and alcoholism, the highest admission and death rates were in the Department of the Visayas and the highest noneffective rate in the Department of Mindanao; on the other hand, the lowest admission rate was noted in the Department of Mindanao and the lowest noneffective and death rates in the Department of Luzon.

By islands the highest admission rates for all causes and exclusive of injuries, venereal diseases, and alcoholism, and the highest total death rate were noted in Jolo; on the other hand, the highest noneffective rate and the highest death rate, exclusive of injuries, venereal diseases, and alcoholism, were recorded in Panay. For all causes the lowest admission rate was in Mindanao, the lowest death rate in Luzon, and the lowest noneffective rate in Cebu; excluding injuries, venereal diseases, and alcoholism, the lowest admission and noneffective rates occurred in Cebu, the lowest death rate in Samar.

Taking the 20 largest posts as shown in International Table No. V, the post having the highest admission rate was San Francisco de Malabon, Luzon, with Jolo next, and Camp Gregg, Luzon, third; the post having the lowest rate was Malabang, Mindanao.

The highest death rate was also found at San Francisco de Malabon, though it was entirely due to external causes, and the next highest at Camp Overton, Mindanao; there were no deaths at Camp Warwick, Cebu, and Camps Bumpus and Downes, Leyte.

The seasonal prevalence of certain special diseases is indicated in the following table:

[Ratio per 1,000 of mean strength.]

Month.	Cholera.	Typhoid fever.	Malaria.	Fevers, undetermined causation.	Beriberi.	Dysentery.	Diarrhea (including enteritis).	Liver diseases.	Tuberculosis.	Pneumonia.
ADMISSIONS.										
January		0.39	18.12	2.73	0.10	5.94	8.18	0.39	0.39	0.10
February		.39	13.42	1.27	.20	5.10	6.37	.39	.20	.10
March		.20	16.03	2.05		5.86	8.70	.68	.68	.20
April		.18	31.71	1.17	.09	6.32	8.40	.45	.63	.18
May		.09	29.48	3.84	.09	5.24	19.37	.66	.75	
June		.18	29.15	5.41		5.04	21.36	.28	.37	.09
July		.43	26.76	6.95		7.12	15.73	.43	.52	
August	0.59	.17	22.93	3.47		5.08	14.47	.68	.51	.08
September		.44	18.80	1.68		5.74	7.94	.53	.44	.09
October		.17	14.57	2.21		4.14	5.34	.52	.26	
November	.09	.17	14.76	1.81		4.75	9.15	.60	.69	.09
December	.09		25.16	2.41		3.48	8.10	.52	.35	
Total	.81	2.80	261.55	35.27	.45	63.67	133.31	6.15	5.79	.90
DEATHS.										
January		.10	.10			.10				
February			.10			.10				
March		.10	.10							
April			.18		.18					
May			.09			.09				
June										
July						.09				
August	.17		.08					.08	.08	
September										
October						.17				
November		.09							.09	
December						.09				
Total	.18	.27	.63		.18	.63		.09	.18	

The rate for cholera was highest in August; for typhoid fever in the first and third quarters of the year; for malaria, April, May, and June; for undetermined fevers, June and July; for dysentery, July; and for diarrhea, June.

The next table shows the influence of season on the general rates.

Month.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases, exclusive of venereal diseases, alcoholism, and injuries.
		All causes.			Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	10,266	118.64	0.58	60.80	74.80	0.39	33.31	Malaria, 186; diarrhea, 84; dysentery, 61; furuncles, 36.
February	10,204	106.72	.49	57.50	66.24	.39	31.76	Malaria, 137; diarrhea, 65; dysentery, 52; furuncles, 41.
March	10,231	113.87	.88	53.08	72.63	.29	28.99	Malaria, 164; diarrhea, 89; dysentery, 60; furuncles, 36.
April	11,071	129.35	.63	54.17	87.62	.36	30.77	Malaria, 351; diarrhea, 93; dysentery, 70: furuncles, 38.
May	10,684	165.09	1.59	63.94	110.72	.37	35.00	Malaria, 315; diarrhea, 207; dengue, 63: dysentery, 56.
June	10,908	152.27	.37	61.97	105.98	......	34.44	Malaria, 318: diarrhea, 233 furuncles, 62; dysentery, 55.
July	11,508	157.19	.52	62.42	107.05	.43	34.36	Malaria, 208; diarrhea, 181; dysentery, 82; febricula, 80.
August	11,819	160.00	1.02	66.82	109.32	.59	35.98	Malaria, 271; diarrhea, 171: furuncles, 81; dysentery, 60.
September	11,329	124.28	.53	61.20	81.56	.09	33.68	Malaria, 213; diarrhea, 90; dysentery, 65; furuncles, 51.
October	11,600	116.38	.78	57.13	70.17	.26	30.07	Malaria, 169; diarrhea, 62; dyspepsia, 52; furuncles, 50.
November	11,584	119.73	.43	56.68	71.99	.26	29.30	Malaria, 171: diarrhea, 106; dysentery, 55; dyspepsia, 42.
December	11,484	131.83	.35	54.52	86.29	.17	28.08	Malaria, 289; diarrhea, 93; dysentery, 40; furuncles,. 39.
Total	11,057	1,599.72	8.14	59.28	1,047.57	3.62	32.17	Malaria, 2,892; diarrhea, 1,474; dysentery, 704: furuncles, 573; dyspepsia, 417; febricula, 390; dengue, 341.

Excluding injuries, venereal diseases, and alcoholism, the highest admission rate was noted in May and the highest death and noneffective rates in August; the lowest admission rate was noted in February, the lowest noneffective rate in December and the lowest death rate in September.

INFLUENCE OF AGE.

It will be seen from the following table that the highest admission rate occurred in soldiers 19 years and under, the highest noneffective rate in those from 20 to 24, and the highest death rate in those 50 ears and over; the lowest admission, death, and noneffective rates were noted in the class between 40 to 50 years of age:

Age.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength. Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under	35	65	....	......	1.66	1,857.14	....	......	47.36
20 to 24 years	4,069	7,420	....	11	276.66	1,823.54	....	2.70	67.99
25 to 29 years	3,726	4,796	....	15	182.26	1,287.17	....	4.03	48.92
30 to 34 years	1,616	1,604	1	10	64.95	992.57	0.62	6.19	40.19
35 to 39 years	863	837	....	4	30.48	969.87	....	4.63	35.32
40 to 44 years	429	347	....	1	12.99	808.86	....	2.33	30.28
45 to 49 years	238	178	....	1	7.26	747.90	....	4.20	30.49
50 years and over	81	87	....	1	3.25	1,074.07	....	12.35	40.18
Total	11,057	15,334	1	43	579.51	1,386.81	.09	3.89	52.42

LENGTH OF SERVICE.

As shown in the next table, the highest admission and noneffective rates occurred in soldiers of less than one year's service and the highest death rate in those who had served ten years and over. On the other hand the lowest admission and noneffective rates occurred in this latter class of soldiers.

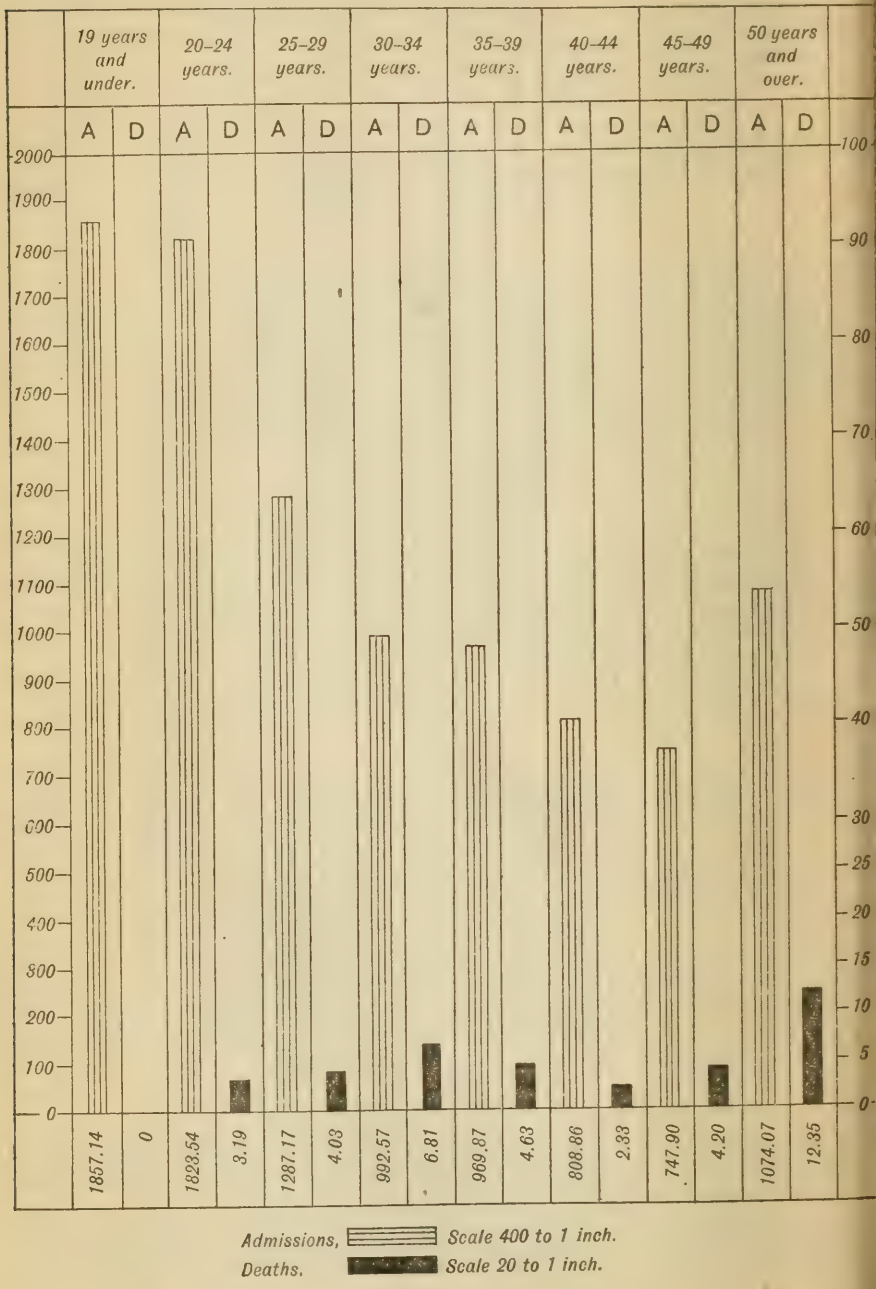
Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength. Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	1,724	3,481	....	6	132.10	2,019.14	....	3.48	76.62
1 to 2 years	1,951	3,400	....	5	131.27	1,742.70	....	2.56	67.28
2 to 3 years	1,847	2,282	....	6	87.59	1,235.52	....	3.25	47.42
3 to 4 years	993	1,195	....	6	44.70	1,203.42	....	6.04	45.02
4 to 5 years	939	1,132	1	3	42.36	1,205.54	1.06	3.19	45.11
5 to 10 years	2,395	2,839	....	9	104.47	1,185.39	....	3.76	43.62
10 years and over	1,208	1,005	....	8	37.02	831.95	....	6.62	30.64
Total	11,057	15,334	1	43	579.51	1,386.81	.09	3.89	52.42

INVALIDED HOME.

The number of enlisted men invalided from the Philippine Islands in 1905 was 321, giving an invaliding ratio of 29.03 per thousand, compared with 38.93 for the previous year.

Diarrheal diseases, including dysentery, diarrhea, and sprue; tuberculosis; insanity, and venereal diseases caused over 54 per cent of the total invaliding.

Chart showing the relation of age to the admission and death rates for disease per thousand strength in the Philippine Islands (American troops).



Of the total sent home 2.49 per cent died, 14.33 per cent were discharged on surgeon's certificate of disability, 25.24 were returned to duty, and 45.17 were remaining at the end of the year, as exhibited in the following statement:

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on surgeon's certificate of disability.	Discharged by expiration of service.	Died.	Deserted.	Discharged by order.	Otherwise disposed of.	Transferred to Government Hospital for Insane.	Remaining at end of year.
Dysentery	79	24.61	35		9	1	2	2	[a] 1		29
Tuberculosis	51	15.89	2	7	4	3					35
Injuries	35	10.90	4	13	3						15
Diseases of the nervous system other than those specified	16	4.98	2		1					1	12
Diseases of the digestive system other than those specified	16	4.98	6		4		1				5
Insanity	14	4.36		9				1			4
Venereal diseases	12	3.74	2	3	2						5
Diseases of the eye	12	3.74	3	4					[b] 1		4
General diseases (not epidemic) other than those specified	12	3.74	2	1		3					6
Diarrheal diseases, including enteritis	10	3.12	1								9
Sprue	9	2.80	4			1	1				3
Diseases of respiratory system other than those specified	7	2.18	5	1							1
Neurasthenia	6	1.87	3								3
Organic disease of the heart	5	1.56		1			1		[c] 1		2
Diseases of the ear	4	1.25		2							2
Malarial diseases	4	1.25	3								1
Diseases of organs of locomotion	4	1.25		3							1
Neuritis	3	.93	1	1							1
Gastritis	3	.93	2				1				
Diseases of the genito-urinary system	3	.93			1						2
Chronic articular rheumatism	2	.62	1		1						
Subacute articular rheumatism	2	.62	2								
Diseases of the skin	2	.62	1								1
Diseases of the circulatory system other than those specified	2	.62									2
Typhoid fever	2	.62	1		1						
Hernia	1	.31			1						
Alcoholism, chronic	1	.31	1								
General physical weakness from long tropical service	1	.31			1						
Shortening of leg, due to old tubercular arthritis (10 years old)	1	.31		1							
Senile debility	1	.31									1
Feeble-mindedness	1	.31									1
Total cases	321		81	46	28	8	6	3	3	1	145
Percentage of total dispositions		100.00	25.24	14.33	8.72	2.49	1.87	.93	.93	.31	45.17

[a] Intercurrence of pneumonia while on leave.
[b] Intercurrence of pulmonary tuberculosis, sent to Fort Bayard.
[c] Intercurrence of gonorrheal prostatitis with surgeon's certificate of disability.

FILIPINO TROOPS.

With a mean strength of 4,732 there were 5,905 admissions to sick report, 21 discharges for disability, 53 deaths, and 159.48 men constantly noneffective, equivalent to rates of 1,247.89, 4.24, 10.71, and 33.70, respectively, compared with 1,137.09, 5.86, 22.34, and 32.05 for 1904.

The admission and constantly noneffective rates were slightly higher than for 1904, but the discharge for disability and death rates were decidedly lower, the death rate being less than half that of the preceding year. The death rate for disease was also lowered.

[Mean strength of command, 4,732.]

	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	Total.	In hospital.	Total.	In hospital.
Ratios per 1,000 of mean strength:				
Admissions to sick report	1,247.89	....	1,076.29	....
Discharges on surgeon's certificate of disability	4.24	....	3.64	....
Deaths	10.71	....	6.26	....
Total losses	14.95	....	9.90	....
Noneffective from sickness	33.70	26.70	27.68	22.37
Average number of days lost:				
For each soldier	12.30	9.75	10.10	8.17
For each case	9.86	7.81	9.39	7.58

For disease the principal causes of admission, with ratios were malaria, 572.70; diarrhea and enteritis, 61.92; venereal diseases, 59.78; bronchitis, acute and chronic, 45.64, and beriberi, 35.93; the corresponding ratios for 1904 were 368.99, 76.58, 67.25, 57.70, and 74.62, so that it will be seen that there has been a very decided increase in malaria and a well-marked decrease in the rates for the other diseases mentioned. The increase in malaria is coincident with an equally well-marked increase among the white troops in the Philippine Islands.

Beriberi has been much less prevalent this year than last, the figures being as follows: Admissions, 1904, 74.62; 1905, 35.93; deaths, 1904, 1.52; 1905, 1.21.

The disease was reported in epidemic form at Daet, Ambos Camarines, and among the native prisoners at Malahi Island.

At Daet the outbreak was in the Thirty-third Company, Philippine Scouts. A case occurred in January and another in June, but the disease did not assume epidemic proportions until October, when cases occurred daily; there were 11 cases and 2 deaths. The surgeon reported that all the sanitary conditions were excellent and that he was unable to account for the outbreak.

Of the epidemic at Malahi Island, Capt. Charles E. B. Flagg, assistant surgeon, reported as follows:

> Cases of beriberi among native prisoners have originated here. Many of the natives brought here from Bilibid had had prior attacks, and it is more than probable that the materies morbi was introduced from without. The conditions of overcrowding, excessive work, and use of the Filipino ration were admirably adapted to the spread of the disease, and this fact was recognized by the surgeon as evidenced in recommendations in sanitary reports.
>
> It was over the written protest of the surgeon as recorded in sanitary reports that these natives were kept herded in double-tier bunks in a space allowing only 22 square feet of floor space and 212 cubic feet per man, and no step was taken to correct the condition until return of the sanitary report for February, 1905, from the Surgeon-General's Office for information as to what steps had been taken in the matter. The subject was still under consideration and the conditions not remedied until July, 1905, when the natives were removed, their services being no longer required here.
>
> The annual rate of mortality of these natives during their nine months' stay here was 182.4 per 1,000, as against a mortality of 0 among white prisoners at the same time in the same prison, but with a more suitable dietary and less overcrowding during the night.
>
> The idea that the native on the Filipino ration, "which is better in quality and quantity than they have been accustomed to," can do as much work as Americans on a liberal dietary has, to my mind, been exploded in this instance as well as in many others in which Filipino scouts are concerned.

The causes of death are shown in the following table:

Cause of death.	Number of deaths.	Ratio per 1,000 of— Mean strength.	Ratio per 1,000 of— Total deaths.
DISEASES.			
Pulmonary tuberculosis	7	1.41	218.75
Beriberi	6	1.21	187.50
Malarial fever (pernicious 3, remittent 1)	4	.81	125.00
Heart disease (valvular 1, mitral stenosis 1, pericarditis 1)	3	.61	93.75
Pneumonia	3	.61	93.75
Typhoid fever	2	.40	62.50
Asiatic cholera	2	.40	62.50
Hodgkin's disease	1	.20	31.25
Ulcer of the stomach	1	.20	31.25
Intestinal obstruction	1	.20	31.25
Nephritis subacute	1	.20	31.25
Unknown, probably syncope resulting from beriberi	1	.20	31.25
Total	32	6.47	1,000.00
INJURIES.			
Gunshot (action 8, accidental 3, suicidal 1, shot by sentry 1)	13	2.63	619.05
Drowning, accidental	7	1.41	333.33
Sunstroke	1	.20	47.62
Total	21	4.24	1,000.00
Total for disease and injury	53	10.71	

The death ratio for tuberculosis and beriberi were lower than for 1904, the killed in action much lower than for the previous year.

The next table shows all discharges for disability:

Cause of discharge.[a]	Number of cases.	Percentage of total discharges.	Discharges for disability. In line of duty.	Not in line of duty. Contracted before enlistment.	Not in line of duty. Contracted after enlistment.	Discharges for disability within three months after enlistment. In line of duty.	Discharges for disability within three months after enlistment. Not in line of duty.
Tuberculosis, pulmonary	10	47.62	9	1			
Syphilis, secondary	2	9.52			2		
Mental weakness	2	9.52		2			
Leprosy	1	4.76	1				
Beriberi	1	4.76					1
Gonorrheal rheumatism	1	4.76			1		
Insanity	1	4.76	1				
Arterio-sclerosis, senile	1	4.76	1				
Bronchitis, chronic	1	4.76	1				
Bronchial asthma, chronic	1	4.76		1			
Total	21	100.00	13	4	3		1

[a] No discharge for injury.

Tuberculosis alone caused nearly 50 per cent of the discharges, and more than 20 per cent of the deaths from disease.

The influence of season is shown in the next table:

Month.	Mean strength.	Ratios per 1,000 of mean strength.						Prevailing diseases (exclusive of venereal, etc.).
		All causes.			Exclusive of venereal disease, alcoholism, and injuries.			
		Admissions.	Deaths.	Noneffective.	Admissions.	Deaths.	Noneffective.	
January	4,413	86.56	1.08	26.54	61.41	0.43	19.16	Malarial, 100; diarrhea, 17; beriberi, 13; acute abscesses, 13.
February	4,[illegible]	80.79	2.12	31.89	63.67	.64	24.42	Malarial, 133; diarrhea, 14; acute bronchitis, 9; furuncles, 9.
March	4,52[illegible]	84.70	.84	29.47	72.32	.63	24.15	Malarial, 158; diarrhea, 19; beriberi, 13.
April	4,610	95.66	1.03	31.19	85.90	.62	25.23	Malarial, 231; diarrhea, 24; acute abscesses, 16; dyspepsia, 12; furuncles, 11.
May	4,587	119.47	.80	33.60	102.47	.40	25.96	Malarial, 287; diarrhea, 34; acute bronchitis, 16; dysentery, 13.
June	4,806	114.86	.20	37.06	104.46	....	30.77	Malarial, 280; diarrhea, 43; acute bronchitis 23; dys[illegible]
July	[illegible]47	121.52	.40	37.78	110.58	.40	32[illegible]	[illegible]
August	4,843	117.28	1.18	38.74	103.45	.59	33.58	Malarial, 306; diarrhea, 26; acute bronchitis, 16; constipation, 16.
Septembe	4,965	103.52	.59	32.71	89.83	.59	27.20	Malarial, 254; acute bronchitis, 19; furuncles, 18; diarrhea, 15.
October	4,850	110.31	.79	34.52	96.50	.79	28.65	Malarial, 258; diarrhea, 21; dyspepsia, 16; beriberi, 15.
November	4,974	108.76	1.38	33.00	94.69	.98	27.77	Malarial, 220; beriberi, 45; acute bronchitis, 28; diarrhea, 19.
December	4,993	99.73	.40	36.32	85.31	.20	30.60	Malarial, 175; diarrhea, 28; beriberi, 23; acute bronchitis, 21.
Total	4,732	1,247.89	10.71	33.70	1,076.29	6.26	27.68	Malarial, 2,710; diarrhea, 293; acute bronchitis, 198; beriberi, 170; dysentery, 108.

Excluding venereal diseases, alcoholism, and injuries, which are practically independent of seasonal influences, the highest admission rate was recorded in July, the lowest in January; the highest death rate in November, the lowest in December; the highest noneffective rate in August, the lowest in January.

Six enlisted men were killed in action and 8 wounded; all the killed and all but 1 of the wounded were by gunshot. Of the wounded 3 died. One officer of scouts was wounded and died as a result.

Detailed information is shown in the following tables:

Philippine scouts killed in action by gunshot.

Character and location of wound.	Nature of missile.		
	45-caliber ball.	Caliber unknown.	Total.
Skull, fracture	1	....	1
Thorax, perforating	2	....	2
Thigh, flesh	....	1	[a] 1
Undetermined	....	2	[b] 2
Total	3	3	6

[a] Died of hemorrhage.

[b] When recovered, bodies were badly decomposed. Wounds could not be located.

Philippine scouts—wounds received in action by gunshot.

Character and location of wound.	Nature of missile.				Disposition.		
	.45-caliber ball.	Buckshot.	Caliber unknown.	Total.	Duty.	Died.	Total.
Abdomen, penetrating			1	1		1	1
Back, flesh		1		1	1		1
Arm, flesh	1			1	1		1
Thigh, flesh		2		2	1	[a] 1	2
Leg:							
Flesh	1			1	1		1
Fracture	1			1		[b] 1	1
Total	3	3	1	[illegible]	4	3	7

[a] Died of tetanus.

[b] Died of valvular disease of the heart, six weeks after incurrence of wo[illegible]

NOTE.—Not included in this table is 1 lieutenant of scouts who was w[illegible]ed in the knee by a .45-caliber ball and died three weeks later of septicemia.

Philippine scouts—wounds received in action, other than gunshot.

[illegible] and location of wound.	Nature of w[illegible]n	Disposition, duty.
Total	1	
	10.	
Shoulder, flesh		1

The following table shows the more important operations performed upon Filipino scouts. There were 65 operations, with no failure and no death. Chloroform was used as an anesthetic three times as often as ether:

Surgical operations performed on Philippine scouts.

Operation.	Disease or injury.	Number of cases.	Result.		Anesthetic.			
			Successful.	Partially successful.	Chloroform.	Ether.	Local.	None.
	Ear.							
Opening of mastoid cells	Mastoiditis	1	1		1			
	Thorax.							
Thoracotomy	Empyema	1		1		1		
	Abdomen.							
Incision and drainage	Abscess of liver	1	1				1	
Cholecystotomy	Cholecystitis	1	1		1			
Appendectomy, 1; incision and drainage, 1.	Appendicitis	2	2			2		
Extirpation	Multiple cysts, great omentum	1	1			1		
Laparotomy	Incised wound, abdomen	1	1		1			
Bassini's, 4; Ferguson's, 1	Inguinal hernia	5	5		5			
	Anus.							
Excision and curettage	Fistula in ano	1	1		1			
	Genito-urinary system.							
Circumcision	Phimosis, 2; paraphimosis, 1; disease not stated, 1.	4	4		1		3	
	Skin and cellular tissues.							
Incision and drainage	Abscess	26	26				6	20
Do	Cellulitis	1	1				1	
Excision	Carbuncle	1	1				1	

Surgical operations performed on Philippine scouts—Continued.

Operation.	Disease or injury.	Number of cases.	Result.		Anesthetic.			
			Successful.	Partially successful.	Chloroform.	Ether.	Local.	None.
	Lymphatic glands.							
Excision, 2; incision and curettage, 4; injection iodoform emulsion, 1.	Inguinal adenitis, venereal, 2; inguinal adenitis, nature not stated, 5.	7	7	....	....	1	6	....
	Amputations.							
Amputation, thigh, site [illegible] stated	Gunshot wound, thigh	1	1	....	1	....	....	....
Amputation, finger, 3; thumb, 2	Traumatism	5	5	....	5	....	....	....
	Foreign bodies.							
Incision and extraction	Embedded bullet	2	2	....	2	....	....	....
Do	Embedded copper primer	1	1	....	....	....	....	1
	Tumors.							
Excision	Sebaceous cyst	3	3	....	....	1	2	....
	Total	65	64	1	18	6	20	21

RECRUITING.

In this table are shown the results obtained from the examination of Filipino applicants for enlistment during the year, in both absolute and proportional numbers:

TABLE A.

	Number.	Ratio per 1,000 examined.
Examined	1,457	1,000.0
Accepted	1,312	900.5
Rejected on primary examination	133	91.3
Declined	12	8.2

The number of recruits enlisted in 1905 was only about one-third of the number for 1904, but the proportion accepted was practically the same.

The following statement shows the ages of all accepted Filipino recruits and the proportion at each age per thousand:

TABLE B.

Age.	Number.	Ratio.	Age.	Number.	Ratio.
18 years and under	3	2.3	31 years	23	17.5
19 years	7	5.3	32 years	13	9.9
20 years	24	18.3	33 years	20	15.2
21 years	255	194.4	34 years	7	5.3
22 years	178	135.7	35 years	5	3.8
23 years	161	122.7	36 years	3	2.3
24 years	160	122.0	37 years	1	0.8
25 years	157	119.7	38 years	5	3.8
26 years	77	58.7	39 years	1	0.8
27 years	65	49.5	40 years and over	3	2.3
28 years	61	46.5			
29 years	45	34.3	Total	1,312	1,000.0
30 years	38	29.0			

The average age of accepted recruits was slightly greater than for 1904, but in other respects the figures are about the same.

In this table is shown, in both absolute and proportional numbers, the relation of height to age of accepted Filipino recruits:

TABLE C.—*Relation of height to age.*

ABSOLUTE NUMBERS.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
4 feet 10 inches and under				4	2		1	2	3	12
4 feet 11 inches				15	4	2	2	2	6	31
5 feet			1	17	12	5	7	5	20	67
5 feet 1 inch		1	1	25	24	19	21	25	24	140
5 feet 2 inches	1	1	10	47	41	31	27	29	63	250
5 feet 3 inches			5	38	34	27	31	23	64	222
5 feet 4 inches	1	2	4	43	30	39	28	26	82	255
5 feet 5 inches	1	1	1	41	15	18	23	21	50	171
5 feet 6 inches		1		15	9	12	14	16	29	96
5 feet 7 inches		1	1	4	5	4	4	5	15	39
5 feet 8 inches				3	1	1	2	2	6	15
5 feet 9 inches			1	2	1	2				6
5 feet 10 inches				1					2	3
5 feet 11 inches and over						1		1	3	5
Total	3	7	24	255	178	161	160	157	367	1,312

PROPORTIONAL NUMBERS.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
4 feet 10 inches and under				15.7	11.2		6.2	12.7	8.2	9.1
4 feet 11 inches				58.8	22.5	12.4	12.5	12.7	16.3	23.6
5 feet			41.7	66.7	67.4	31.1	43.8	31.8	54.5	51.1
5 feet 1 inch		142.9	41.7	98.0	134.8	118.0	131.3	159.2	65.4	106.7
5 feet 2 inches	333.3	142.9	416.7	184.3	230.3	192.6	168.7	184.7	171.7	190.6
5 feet 3 inches			208.3	149.0	191.0	167.7	193.8	146.5	174.4	169.2
5 feet 4 inches	333.3	285.7	166.7	168.6	168.6	242.3	175.0	165.6	223.5	194.4
5 feet 5 inches	333.3	142.9	41.7	160.8	84.3	111.8	143.7	133.8	136.2	130.3
5 feet 6 inches		142.9		58.8	50.6	74.5	87.5	101.9	79.0	73.2
5 feet 7 inches		142.9	41.7	15.7	28.1	24.8	25.0	31.8	40.9	29.7
5 feet 8 inches				11.8	5.6	6.2	12.5	12.7	16.3	11.4
5 feet 9 inches			41.7	7.8	5.6	12.4				4.6
5 feet 10 inches				3.9					5.4	2.3
5 feet 11 inches and over						6.2		6.4	8.2	3.8
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

The average height of recruits was somewhat greater than in 1904, but 55.03 per cent were under 5 feet 4 inches and 3.27 per cent under 5 feet.

The next table shows the weights of Filipino recruits who were finally approved, and the proportion of each weight per thousand; also the relation of weight to age in both absolute and proportional numbers:

TABLE D.—*Relation of weight to age.*

ABSOLUTE NUMBERS.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
99 pounds and under				8	5	5	2	2	5	27
100 to 104 pounds			4	30	19	18	11	9	31	122
105 to 109 pounds			5	20	17	25	11	19	34	131
110 to 114 pounds		1	3	41	31	16	26	21	52	191
115 to 119 pounds	2	3	4	49	32	31	35	30	61	247
120 to 124 pounds	1	1	3	47	29	27	31	31	61	231
125 to 129 pounds		2	3	31	21	18	16	19	53	163
130 to 134 pounds			1	19	12	7	13	14	39	105
135 to 139 pounds			1	6	6	10	6	8	16	53
140 to 144 pounds				1	4	1	8	4	9	27
145 to 149 pounds				2	2	2	1		5	12
150 to 154 pounds						1			1	2
155 to 159 pounds										
160 pounds and over				1						1
Total	3	7	24	255	178	161	160	157	367	1,312

TABLE D.—*Relation of weight to age*—Continued.

PROPORTIONAL NUMBERS.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
99 pounds and under	....	....	....	31.4	28.1	31.1	12.5	12.7	13.6	20.6
100 to 104 pounds	....	....	166.7	117.6	106.7	111.8	68.8	57.3	84.5	93.0
105 to 109 pounds	....	....	208.3	78.4	95.5	155.3	68.8	121.0	92.6	99.9
110 to 114 pounds	....	142.9	125.0	160.8	174.2	99.4	162.5	133.8	141.7	145.6
115 to 119 pounds	666.7	428.6	166.7	192.2	179.8	192.5	218.7	191.1	166.2	188.3
120 to 124 pounds	333.3	142.9	125.0	184.3	162.9	167.7	193.7	197.4	166.2	176.1
125 to 129 pounds	....	285.7	125.0	121.6	118.0	111.8	100.0	121.0	144.4	124.2
130 to 134 pounds	....	....	41.7	74.5	67.4	43.5	81.3	89.2	106.3	80.0
135 to 139 pounds	....	....	41.7	23.5	33.7	62.1	37.5	51.0	43.6	40.4
140 to 144 pounds	....	....	....	3.9	22.5	6.2	50.0	25.5	24.5	20.6
145 to 149 pounds	....	....	....	7.8	11.2	12.4	6.2	....	13.6	9.1
150 to 154 pounds	....	....	....	....	....	6.2	....	....	2.7	1.5
155 to 159 pounds	....	....	....	....	....	....	....	....	....	....
160 pounds and over	....	....	....	3.9	....	....	....	....	....	.8
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

The weight of 54.74 per cent of accepted recruits was less than 120 pounds, while only 3 reached 150 pounds; the average weight, however, was a little greater than for 1904.

The following table shows the chest measurement of accepted Filipino recruits with ratios per thousand, also the relation of chest measurement to age in both absolute and proportional numbers:

TABLE E.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
26 inches and under	....	....	....	2	....	....	1	1	....	4
27 inches	....	....	....	7	5	1	....	1	4	18
28 inches	....	1	3	29	16	11	7	3	9	79
29 inches	....	4	4	49	38	23	21	19	43	201
30 inches	1	1	6	77	37	43	44	46	71	326
31 inches	1	....	2	51	36	35	40	33	87	285
32 inches	....	1	4	25	26	29	21	29	89	224
33 inches	1	....	4	10	12	12	16	14	44	113
34 inches	....	....	1	3	6	6	8	5	10	39
35 inches	....	....	....	1	2	1	2	5	8	19
36 inches and over	....	....	....	1	....	....	....	1	2	4
Total	3	7	24	255	178	161	160	157	367	1,312

PROPORTIONAL NUMBERS.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
26 inches and under	....	....	....	7.8	....	....	6.2	6.4	....	3.0
27 inches	....	....	....	27.5	28.1	6.2	....	6.4	10.9	13.7
28 inches	....	142.9	125.0	113.7	89.9	68.3	43.8	19.1	24.5	60.2
29 inches	....	571.4	166.7	192.2	213.5	142.9	131.3	121.0	117.2	153.2
30 inches	333.3	142.9	250.0	302.0	207.9	267.1	275.0	293.0	193.5	248.5
31 inches	333.3	....	83.3	200.0	202.3	217.4	250.0	210.2	237.1	217.2
32 inches	....	142.9	166.7	98.0	146.1	180.1	131.2	184.7	242.5	170.7
33 inches	333.3	....	166.7	39.2	67.4	74.5	100.0	89.2	119.9	86.1
34 inches	....	....	41.7	11.8	33.7	37.3	50.0	31.8	27.2	29.7
35 inches	....	....	....	3.9	11.2	6.2	12.5	31.8	21.8	14.5
36 inches and over	....	....	....	3.9	....	....	....	6.4	5.4	3.0
Total	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0

The average chest measurement, like the height and weight, shows a little improvement over the figure for 1904; 47.86 per cent had a chest measurement of under 31 inches, while only 4.72 per cent reached 34 inches.

The following statement shows the causes of rejection among Filipino candidates examined for enlistment during the year 1905, with ratios per thousand rejected:

TABLE F.

Cause of rejection.	Number rejected.	Ratio per 1,000.
Heart disease	17	127.82
Defects of development except as shown in detail	17	127.82
Venereal diseases	16	120.30
Under weight	16	120.30
Diseases of the organs of locomotion except spinal curvature	7	52.63
Defects of vision	6	45.11
Tuberculosis	6	45.11
Diseases of the respiratory system	6	45.11
Curvature of spine	6	45.11
Physical debility	5	37.60
Chest development insufficient	5	37.60
Diseases of the eye except defects of vision	4	30.07
Varicocele	4	30.07
Under height	4	30.07
Diseases of the nervous system	3	22.56
Diseases of the spine	3	22.56
Defects of hearing	2	15.04
Defective teeth	2	15.04
Diseases of the genito-urinary system (nonvenereal)	2	15.04
Hernia	1	7.52
Causes not physical	1	7.52
Total	133	1,000.00

The chief causes of rejection are much the same as last year; defects of development (including 2, 4, 11, and 14) caused 315.79 rejections per 1,000 as against 248.29 last year, and venereal diseases 120.30, as compared with 74.83 in 1904. There was a reduction in the number of rejections for heart disease and defects of vision.

Tuberculosis gave a rejection rate of 45.11; varicocele, 30.07; defective teeth, 15.04; and hernia, 7.52, compared with 9.36, 72.30, 28.41, and 53.98, respectively, the corresponding rates for white troops.

SANITATION.

DEPARTMENT OF LUZON.

Speaking generally, the sanitary conditions of the posts in this department have been reported as very good. The buildings are ample, well situated, and adapted to the climate, and the grounds are well policed, except at many of the scout stations where the quarters are rented buildings or nipa shacks.

Fort William McKinley.—The drainage is natural and poor; sewerage system is not entirely completed. Earth closets in use except in those quarters having sewer connections. Solid wastes and excreta are collected twice daily and dumped into river. Measures are under consideration for the draining of the pools formed in the old stone quarries.

Camp Stotsenburg.—Drainage at this post is natural; no standing water in the vicinity of the station. The dry-earth closets in use are emptied twice daily and contents buried in trenches; kitchen refuse is burned. Boiled water is used for drinking purposes. A sewerage system with flush closets should be installed at this station.

Camp Gregg.—Natural drainage is good at this station. Dry-earth closets are used. Distilled water used for drinking purposes.

Camp Wallace.—Drainage is natural; drinking water is distilled. Dry earth closets are in use.

Camp Wilhelm.—This post has been carefully ditched; drinking water is distilled and all wastes are thrown into a river.

Camp Daraga.—Surface drainage satisfactory; distilled water used for drinking purposes.

Camp McGrath.—Surface drainage is good and all wastes are satisfactorily disposed of. The water, taken from a large spring on the reservation, is distilled before being used for drinking purposes.

Cuartel de España.—The sanitary condition at this post is satisfactory.

Cuartel de Meisic.—Drainage at this station is only fair, owing to the low, level grounds. Sewerage system old and not altogether satisfactory. Drinking water is distilled.

DEPARTMENT OF THE VISAYAS.

All sanitary defects noted for the permanent stations in this department have been promptly remedied, except the water supply and the drainage of the marsh at Camp Connell. Artesian wells are being bored to obviate the former condition, but the latter can not be undertaken except at great expense. An unsuccessful attempt was made to secure artesian well water for Camp Bumpus during the year.

DEPARTMENT OF MINDANAO.

The sanitary conditions in this department are constantly improving. The construction of durable frame buildings, which have been occupied as soon as completed, has been carried on at the permanent posts. Water is distilled for drinking purposes at the larger posts, and most of the subposts receive distilled water from the posts which have distilling plants. Boiling is still resorted to at a few posts to sterilize the drinking water. The dry-earth system for the disposal of excreta continues in use, and as the native scavengers have been more closely supervised there has been less nuisance created than formerly.

The following list shows the posts in the Philippine Islands at which disease-conveying mosquitoes were found during the year:

Stegomyia fasciata.

Antimonan, Luzon.
Balayan, Luzon.
Baliuag, Luzon.
Binan, Luzon.
Binangonan, Luzon.
Batangas, Luzon.
Calaoag, Luzon.
Calapan, Mindoro.
Camp Gregg, Luzon.
Camp Connell, Samar.
Camp Hartshorne, Samar.
Camp Stotsenburg, Luzon.
Camp Warwick, Cebu.
Cottabato, Mindanao.
Camp Overton, Mindanao.
Iloilo, Panay.
Jolo, Jolo.

Stegomyia fasciata—Continued.

Manila, Luzon.
Naic, Luzon.
Polo, Luzon.
Tanay, Luzon.

Culex fatigans.

Balayan, Luzon.
Baliuag, Luzon.
Binan, Luzon.
Calamba, Luzon.
Camp Connell, Samar.
Camp Daraga, Luzon.
Camp Hartshorne, Samar.
Camp Gregg, Luzon.
Camp Jossmann, Guimaras.
Camp Stotsenburg, Luzon.

Culex fatigans—Continued.

Camp Warwick, Cebu.
Cottabato, Mindanao.
Imus, Luzon.
Jolo, Jolo.
Manila, Luzon.
Naic, Luzon.
Oras, Samar.
Camp Overton, Mindanao.
Polo, Luzon.
Santo Tomas, Luzon.
Tanay, Luzon.
Zamboanga, Mindanao.

Mansonia uniformis.

Camp Daraga, Luzon.
Camp Gregg, Luzon.
Camp Hartshorne, Samar.
Camp Stotsenburg, Luzon.
Cottabato, Mindanao.
Manila, Luzon.

PREVALENCE OF DISEASE, BY RACES.

In making this comparison it is to be borne in mind that the native troops were serving in their own country under conditions natural to them but inimical to the white race, and that American soldiers excused from any portion of their military duty, no matter how trivial the cause, must be placed on sick report, while this is not the case with Filipino soldiers.

As was the case last year, all the rates except the death rate were considerably lower for Filipino than for American troops; the death rate, total and for disease only, is, however, much higher among the Filipinos.

The explanation of the higher death rate among the Filipinos is to be found in the undue prevalence among them of tuberculosis and beriberi.

The diseases more prevalent among American troops, with the admission rates per 1,000 for each, are shown in the following table:

Disease.	American.	Filipino.
Venereal diseases	305.78	59.78
Diarrheal diseases	133.31	61.92
Dysentery	63.67	22.82
Dyspepsia	57.71	22.82
Dengue	30.84	6.55
Alcoholism	30.12	.63
Articular rheumatism, acute and chronic	11.30	6.34
Liver diseases	6.15	2.11
Appendicitis	4.79	.85
Typhoid fever	2.80	1.48
Measles	2.71	....
Heart disease	1.63	1.27
Insanity	1.45	.85

The diseases more prevalent among the Filipinos are shown in the next table:

Disease.	Filipino.	American.
Malarial fevers	572.70	261.55
Bronchitis, acute and chronic	40.64	26.14
Beri-beri	35.93	.45
Conjunctivitis, acute	14.58	7.96
Tuberculosis	6.13	5.79
Pneumonia	4.02	.90
Cholera	.85	.81

HEALTH OF TROOPS ON UNITED STATES TRANSPORTS.

During the year 1905, 10,994 enlisted men left the United States on transports for passage to foreign stations and 7,627 returned from foreign stations.

The army transports were the most healthful places for troops during the year, the admission, death, and noneffective rates being 717.11, 3.21, and 34.82, respectively, per thousand of mean strength.

The sanitary condition of Government transports is generally satisfactory. In this connection it is thought proper to recommend that care be taken not to overload the transports with sick returning from Manila. Instances of overcrowding are now and then brought to notice. This condition could be almost entirely avoided by restricting the transportation of sick and wounded on a given transport to the known capacity of the hospital wards and by requiring the excess over that number to wait for the next transport, with the probability of more favorable conditions.

MEDICAL OFFICERS, UNITED STATES ARMY.

The number of commissioned officers of the Medical Department provided for by existing law is 322; the number in service June 30, 1906, was 303, leaving 19 vacancies at that date.

The following table exhibits the loss of medical officers during the fiscal year:

Cause.	Colonels.	Lieutenant-colonels.	Majors.	Captains.	First lieutenants.	Total.
Commission vacated by new appointment		1				1
Retired from active service	1	1	2	1	1	6
Resigned			1	1	1	3
Died				1		1
Aggregate	1	2	3	3	2	11

There have been promoted during the year 1 lieutenant-colonel, deputy surgeon-general, to be colonel, assistant surgeon-general; 2 majors, surgeons, to be lieutenant-colonels, deputy surgeons-general; 3 captains, assistant surgeons, to be majors, surgeons, and 64 first lieutenants, assistant surgeons, have been advanced to the rank of captain after five years' service, in accordance with existing law. Eleven appointments have been made in the grade of assistant surgeon, with the rank of first lieutenant, after a full course of instruction at the Army Medical School and successfully passing the qualifying examination.

Nineteen captains, assistant surgeons, were examined for promotion, 17 of whom were found in all respects qualified for promotion to surgeon, with the rank of major; 2 were found not qualified professionally and suspended from promotion for one year. Two captains, assistant surgeons, were reexamined physically and found qualified for promotion. Sixty-nine first lieutenants, assistant surgeons, have been examined for advancement to the rank of captain, of whom 64 were found fully qualified, 2 were found physically disqualified, 1 was retired from active service, and 1 was awaiting retirement at the close of the fiscal year; 3 were found not qualified professionally and suspended from advancement for one year from date they would have been entitled to advancement had they been found qualified.

Preliminary examinations of applicants for appointment in the Medical Corps of the Army were held at various posts thruout the United States on August 1, 1905, and May 1, 1906. These examinations are summarized as follows:

Place of examination.	Invited.	Declined to appear.	Failed to appear.	Examined.	Physically disqualified.	Withdrew.	Rejected.	Qualified.
Examination held August 1, 1905.								
Fort Leavenworth, Kans	8	......	1	7	1	......	6	......
Army General Hospital, Washington, D. C	7	1	2	4	......	......	1	3
Fort Sheridan, Ill	4	1	......	3	......	......	1	2
Fort Jay, N. Y	4	......	......	4	1	1	2	......
Fort Thomas, Ky	3	......	1	2	1	1	......	......
Fort Banks, Mass	3	......	1	2	......	......	2	......
Jefferson Barracks, Mo	2	......	......	2	1	......	......	1
Columbus Barracks, Ohio	2	......	......	2	2	......	......	......
Fort McPherson, Ga	2	......	......	2	1	......	1	......
Fort Crook, Nebr	2	1	......	1	1	......	......	......
Fort Snelling, Minn	2	......	1	1	......	......	1	......
Fort Wayne, Mich	1	......	1	......	......	......	......	......
Fort Ethan Allen, Vt	1	......	......	1	......	......	......	1
Ancon, Canal Zone	1	......	......	1	......	......	......	1
Vancouver Barracks, Wash	1	......	......	1	......	......	1	......
Madison Barracks, N. Y	1	......	1	......	......	......	......	......
Fort Logan H. Roots, Ark	1	......	......	1	......	......	......	1
Fort D. A. Russell, Wyo	1	......	......	1	......	......	......	1
Jackson Barracks, La	1	......	1	......	......	......	......	......
San Juan, P. R	1	......	......	1	......	1	......	......
Fort Preble, Me	1	......	......	1	......	......	1	......
Fort Sam Houston, Tex	1	......	1	......	......	......	......	......
Total	50	3	10	37	8	3	16	10
Examination held May 1, 1906.								
Fort Sheridan, Ill	8	......	1	7	2	......	5	......
Fort Jay, N. Y	7	1	1	5	3	......	1	1
Fort Leavenworth, Kans	6	......	2	4	1	......	3	......
Fort Snelling, Minn	4	......	......	4	......	1	2	1
Army General Hospital, Washington, D. C	4	1	......	3	1	......	2	......
Jefferson Barracks, Mo	4	1	1	2	......	......	1	1
Fort Thomas, Ky	3	1	......	2	1	......	......	1
Fort Logan H. Roots, Ark	3	......	......	3	......	......	2	1
Fort Des Moines, Iowa	3	......	......	3	2	......	1	......
Fort Adams, R. I	2	......	......	2	......	......	2	......
Fort McPherson, Ga	2	......	1	1	......	......	1	......
Fort Oglethorpe, Ga	2	1	......	1	......	......	......	1
Fort Porter, N. Y	2	......	......	2	......	......	1	1
Fort Logan, Colo	2	......	1	1	......	......	1	......
Fort Sam Houston, Tex	1	1	......	......	......	......	......	......
Fort Banks, Mass	1	......	1	......	......	......	......	......
Fort Barrancas, Fla	1	......	1	......	......	......	......	......
Fort Ontario, N. Y	1	......	1	......	......	......	......	......
Fort Duchesne, Utah	1	......	......	1	1	......	......	......
Total	57	6	10	41	11	1	22	7

The 10 successful applicants in the examination of August 1, 1905, were ordered to the Army Medical School October 2, 1905, and after a full course of instruction were graduated therefrom on May 31, 1906. The successful applicants in the examination of May 1, 1906, will be ordered to the Army Medical School at commencement of the next session.

The bill to increase the efficiency of the Medical Department of the Army, which, after passage by the Senate failed to come to a vote in the House of Representatives, was reintroduced in the present Congress with the following letter of transmittal from the Secretary of War:

WAR DEPARTMENT,
Washington, December 7, 1905.

SIR: I have the honor to transmit herewith draft of a bill to increase the efficiency of the Medical Department of the Army.

This draft is identical in all material respects with the bill which past the Senate at the last session and was favorably reported by the Military Committee of the House of Representatives, too late, however, to receive final consideration during the closing hours of the session.

The proposed measure was the subject of a special message from the President dated January 9, 1905, urging its passage and transmitting a memorandum prepared by the Surgeon-General of the Army and also the remarks of my predecessor, Secretary Root, and of myself, with reference to the bill. A copy of the extract from the special message of the President is inclosed herewith, and especial attention is invited to the full message, which is printed as Senate Document No. 87, Fifty-eighth Congress, third session, and contains a full statement of the reasons for this legislation and an explanation of the provisions of the bill.

The proposed legislation involves no radical departure from existing methods nor appreciable increase in cost, while its enactment into law will be highly beneficial to the efficiency of the Medical Corps of the Army. I therefore most earnestly commend it to the favorable consideration of Congress.

Very respectfully,

WM. H. TAFT,
Secretary of War.

Its passage was also urged by the President in his last annual message. He said: "There is special need for an increase and reorganization of the Medical Department of the Army. In both the Army and Navy there must be the same thoro training for duty in the staff corps as in the fighting line. Only by such training in advance can we be sure that in actual war, field operations and those at sea will be carried on successfully. The importance of this was shown conclusively in the Spanish-American and the Russo-Japanese wars. The work of the medical departments in the Japanese army and navy is especially worthy of study. I renew my recommendation of January 9, 1905, as to the Medical Department of the Army. It is not reasonable to expect successful administration in time of war of a department which lacks a third of the number of officers necessary to perform the medical service in time of peace. We need men who are not merely doctors; they must be trained in the administration of military medical service."

It past the Senate March 29, 1906, and was favorably reported with slight amendments, unanimously, by the Committee on Military Affairs of the House of Representatives April 4, 1906. It did not, however, come to a vote in the first session.

The need of an increase in the Medical Corps is evidenced by the fact that there were on June 30, 1906, 166 civilian physicians employed under contract. The need of increasing the attractiveness of the service is shown by the fact that during the year no progress has been made in filling the 19 vacancies now existing, the number of accepted candidates commissioned being exactly equaled by the losses occurring during the year. It is impossible for the Medical Department to reach a high degree of efficiency or to escape a lamentable breakdown on the occurrence of war if Congress does not come to its relief. Nor can this relief be postponed until war is imminent, for the selection and training of medical officers is a gradual process which requires years of time, and an efficient medical corps can no more be created out of hand than a tree can be made to grow in a night.

PRESENTATION OF MEDAL OF HONOR.

On January 10, 1906, Capt. James Robb Church, assistant surgeon, was presented with a medal of honor by the President of the United States; this was the first presentation of a medal by the President, in person, under the Executive order of September 20, 1905.

The ceremony took place in the President's private office and adjoining cabinet room, and on account of the notable character of Captain Church's services was made a brilliant ceremony; the assemblage included the Secretary of War, the Chief of Staff, the Surgeons-General of the Army and the Navy, officers of the General Staff, and the Medical Department; the members of the legislative council of the American Medical Association, then in session in Washington, were also present.

The Secretary of War formally presented Captain Church to the President, detailing the conspicuous gallantry of that officer—then first lieutenant and assistant surgeon of the First Regiment, U. S. Volunteer Cavalry, the "Rough Riders"—in action at Las Guasimas, Cuba, June 24, 1898, quoting from official reports of Gen. Leonard Wood and of the President himself, then colonel and lieutenant-colonel, respectively, of the regiment, the specific acts entitling the recipient to the distinguished honor about to be conferred.

ARMY MEDICAL SCHOOL.

The tenth session of the school began October 1, 1905, and closed May 31, 1906.

The following is an extract from the report of Col. Valery Havard, assistant surgeon-general, U. S. Army, president of the faculty:

> The number of student candidates admitted was 18, and that of militia medical officers 1. No student medical officer attended. On October 4, 1905, the contract of one of the student candidates was annulled by the Surgeon-General upon the recommendation of the faculty of the school.
>
> On account of illness Contract Surg. John R. Hicks has not yet taken the final examination. Contract Surg. Albert H. Wilton contracted pneumonia, which resulted in his death May 22, 1906. The remaining 16 students completed the course, past their graduating examination, and were awarded certificates of proficiency.
>
> In addition to the regular course the following instruction was also given:
>
> Twenty-two hours in equitation at Fort Myer, Va., by First Lieut. L. R. Ball, Thirteenth U. S. Cavalry.
>
> Three lectures each on military law by Gen. George B. Davis, Judge-Advocate-General, U. S. Army, and Maj. John B. Porter, Judge-Advocate-General's Department.
>
> Three lectures on "Transportation" by Maj. C. B. Baker, Quartermaster-General's Department.
>
> Two lectures and a series of demonstrations on "Mosquitoes" by Miss Clara Ludlow.
>
> The conduct and bearing of the students were excellent, and their attention to duty and industry, with one or two exceptions, highly commendable.
>
> The graduating examination began on May 14, and the closing exercises, including the award of diplomas, were held May 31.
>
> Two of the students, Drs. Albert G. Love and Harold W. Jones, graduated with honor, having attained a percentage exceeding 90. To Doctor Love, who stood first in the class, with a percentage of 94.1, was awarded the Hoff medal.
>
> The final or qualifying examination for commission in the Medical Corps began June 1 and closed June 12. Of the 15 student graduates examined two were found physically disqualified and two professionally disqualified. Eleven were found qualified in every respect and recommended for appointment as assistant surgeons

CONTRACT SURGEONS, UNITED STATES ARMY.

There were 157 contract surgeons in service at the close of the fiscal year, June 30, 1905. During the past fiscal year contracts were made with 46 physicians, while 36 contracts were annulled, and 1 was terminated by death, leaving 166 in service June 30, 1906. Of the 46 contracts made, 10 were merely renewals for definite terms of contracts already in force; 18 were with candidates for commissions as medical officers, who were given the status of contract surgeons while pursuing a course of study at the Army Medical School; and 16 were with those who had previously served satisfactorily as contract surgeons or volunteer medical officers.

Contract Surg. Albert H. Wilton, U. S. Army, died May 22, 1906, at the Army General Hospital, Washington Barracks, D. C., of pneumonia. He was a student candidate at the Army Medical School, and his death occurred while serving in that capacity.

CONTRACT DENTAL SURGEONS, UNITED STATES ARMY.

Thirty dental surgeons are allowed by the act of Congress approved February 2, 1901, and this number has been continuously employed under contract during the fiscal year ended June 30, 1906. One contract was annulled, and the vacancy thus created was immediately filled. Fourteen dental surgeons are at present serving in the Philippine Islands and 16 in the United States.

The following tables of dental statistics show the valuable work performed by the dental surgeons thruout the year 1905. In the Philippine Islands 951.61 cases per 1,000 of mean strength received dental treatment, and operations were performed to the extent of 1,047.73 per 1,000 compared with 608.55 and 579.54, the corresponding figures for the United States proper.

The number of teeth affected by dental caries in white troops serving in the United States was 399.50 per 1,000 men, compared with 220.25 for the negro troops. In the Philippine Islands the number affected in white troops was 947.41 per 1,000 of strength, while 17.96 per 1,000 of the native scouts were treated for dental caries:

Dental and oral diseases.

	United States (continental) except Alaska.		Philippine Islands.		Alaska.		Total.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
Cases admitted to treatment	27,543	608.55	15,850	951.61	1,167	1,292.36	44,560	684.09
Operations performed	26,230	579.54	17,450	1,047.73	1,046	1,158.36	44,726	686.63

Dental caries—Number of teeth affected.

	United States (continental) except Alaska.		Philippine Islands.		Alaska.		Total.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
White troops	16,752	399.50	11,296	917.41	901	997.79	28,949	507.18
Colored troops	733	220.25					733	220.25
Filipino troops			85	17.96			85	17.96
Total	17,485	386.32	11,381	683.34	901	997.79	29,767	456.98

HOSPITAL CORPS.

At date of last report, June 30, 1905, the strength of the Hospital Corps was as follows:

Sergeants, first class	275
Sergeants	277
Corporals	16
Privates, first class	1,159
Privates	1,333

Since then it has gained—

By enlistment	742
By transfer	649
Return from desertion	57

And lost during the same period—

By discharge by expiration of term of service	761
By discharge by order	110
By discharge, sentence general court-martial	77
By discharge, surgeon's certificate of disability	78
By transfer to the line	16
By retirement	17
By death due to disease	11
By death due to suicide	4
By death due to drowning	2
By death (killed in action)	2
By desertion	232
Dropt	2

Leaving in service June 30, 1906—

Sergeants, first class	290
Sergeants	267
Corporals	18
Privates, first class	1,467
Privates	1,154

Total number of losses during the year, 1,312; gain, 1,448.

On June 30, 1905, 25 vacancies existed in the grade of sergeant, first class. In addition to these vacancies, 16 occurred up to December, 1905. The 41 vacancies were filled on December 14, 1905, by the appointment of 41 sergeants who had past highest in the examination required by law and regulations held during the preceding September. Of the successful candidates, 3 attained over 90 per cent, 22 from 80 to 89 per cent, and 16 from 75.7 to 79 per cent. Thirty-two were on duty in the United States and 9 in the Philippines Division. The total number of applicants for this competitive examination was

83: 62 came from sergeants serving at posts in the United States and its territories and 21 from those serving in the Philippines Division.

Only 10 vacancies existed in the grade of sergeant, first class, on June 30, 1906.

The number of sergeants appointed during the fiscal year was 109. Examinations for these positions are held under the supervision of the chief surgeons of the different military departments, or under the direction of this office when applicants are serving at military stations reporting directly to the War Department.

Recruitment.—Enlistments for the Army being now for three years, it is assumed that about one-third of the enlisted force of the Hospital Corps will be discharged by expiration of term of service during each calendar year. This constant loss is increased considerably by the discharges on surgeon's certificate of disability, sentences of courts-martial, by purchase, by War Department orders for various reasons, and by deaths and desertions. Every available effort is made to fill these vacancies from civil life thru the recruiting system of the Army. Still such enlistments fall far short of the demands of the service. Attractive posters are furnished to all recruiting officers upon their requisition and are otherwise freely distributed. The records of this office show that only about 350 enlistments were made from civil life for the fiscal year ending June 30, 1906. The remaining vacancies of the corps had to be filled by transfers from the line of the Army. This dearth of applicants from civil life is apparently due to the prevalent ease with which remunerative employment can be obtained from civil life, and the general prosperity of the working classes, from which the supply of the Army is drawn in great part.

In September, 1905, recommendation was made to The Military Secretary for the assignment of privates, first class, Hospital Corps, to recruiting stations to act as vaccinators. The men selected for these details were first sent to recruiting depots for a short time in order to be instructed in their new duties and when reported competent were assigned to designated recruiting stations. About 60 are now on this duty.

On April 21, 1906, upon my request, the War Department ordered Captain Gilchrist to take 3 noncommissioned officers and 100 men from Company A, Hospital Corps, to San Francisco, Cal., and report to the commanding general, Department of California, for duty in connection with the relief of that city from the effects of the recent disastrous earthquake and fire. This detachment was on duty at Golden Gate Park and other places until June 16, 1906, when a part was returned to the general hospital, Washington Barracks, and the rest transferred to stations in California and the Philippine Islands.

In addition to this detail the different regiments and commands of troops ordered to San Francisco at that time were also accompanied by a sufficient number of noncommissioned officers and privates of the Hospital Corps.

The efficient aid rendered by the enlisted men of the Hospital Corps to the wounded of the gunboat *Bennington* was highly commended by the commanding officer, Fort Rosecrans, Cal., in his report of August 15, 1905.

Sergeant (first class) James C. Gunn was recommended for a certificate of merit on account of the highly efficient manner in which he rendered first aid to the wounded, under fire, during the engagement at Dato Alis' stronghold on the Malate River, Mindanao, P. I., October 22, 1905.

One private, first class, Roderick McDonald, was shot in action March 7, 1906, and died March 8, 1906, in an engagement with Pulajanes, at Biga, Cebu, P. I., and Private Harry B. Rosebrough was killed in action March 7, 1906, in the assault on Bud-Dajo, Island of Jolo.

The following enlisted men of the Hospital Corps were mentioned in General Orders, No. 107, War Department, July 1, 1904, publishing a list of names of soldiers to whom certificates of merit had been awarded since January 1, 1904, with the grounds of award:

Name, rank, and organization.	Date of award.	Date and place of occurrence.	Ground of award.
Herter, Otto, private, first class, Hospital Corps, U. S. Army (discharged Jan. 30, 1905).	Feb. 2, 1904	Near Bago-Buntay, Rizal, Luzon, P. I., Mar. 27, 1903.	Meritorious conduct during an engagement with ladrones, while a private, Hospital Corps, in taking the gun of a wounded man, moving upon the firing line, displaying much coolness and bravery during entire engagement, and setting an excellent example for the troops of the command
Leonard, Charles L., sergeant, first class, Hospital Corps, U. S. Army.	June 3, 1904	Assault on Fort Bacolod, Lake Lanao, Mindanao, P. I., Apr. 8, 1903.	Distinguished gallantry in the assault while a hospital steward, Hospital Corps, U. S. Army.
McConyn, Richard H., sergeant, first class, Hospital Corps, U. S. Army.	Feb. 2, 1904	San Juan, Santiago, Cuba July 1, 1898.	Gallant conduct and highly distinguished service while a private, Troop A, Sixth U. S. Cavalry, in voluntarily leaving shelter and, in the direct line of well-directed and continuous fire from the enemy, assisting in the rescue of a seriously wounded comrade, who had fallen in the open field about 30 yards from his command.

The distribution of the Hospital Corps, according to latest returns received at this office, is as follows:

	Sergeants, first class.	Sergeants.	Corporals.	Privates, first class.	Privates.	Total noncommissioned officers.	Total privates, first class and privates.
California	14	13	....	64	40	27	104
Colorado	7	8	....	34	21	15	55
Columbia	16	4	....	52	40	20	92
Dakota	8	7	....	41	29	15	70
East	42	39	....	178	173	81	351
Gulf	12	8	....	46	59	20	105
Lakes	8	8	....	40	32	16	72
Missouri	17	32	2	110	94	51	204
Texas	10	6	....	39	45	16	84
Independent	51	54	11	384	286	116	670
Total United States	185	179	13	988	819	377	1,807
Alaska	6	4	....	20	18	10	38
Porto Rico	1	2	....	10	8	3	18
Hawaii	1	2	....	4	5	3	9
Philippines	82	78	5	417	297	165	714
Ordered to Philippines	8	....	....	2	3	8	5
Transports	7	2	....	26	4	9	30
Grand total	290	267	18	1,467	1,154	575	2,621

COMPANY "A."

A total of 283 men were assigned to Company A, Hospital Corps, for instruction during the year, including 1 private first class. One hundred and forty-four of the 283 were recruits who had been recently transferred from the line, 124 of this class being received from Fort Slocum, N. Y., and the remaining 20 from Columbus Barracks, Ohio. Of the 8 privates received by transfer (none of whom were recruits) 2 were from the engineer corps, 1 from the Ninth U. S. Infantry, and 5 from hospital corps detachments.

The recruits transferred from the line and assigned to the company for instruction from Fort Slocum, N. Y., up to and including the month of August proved, as a class, to be far from satisfactory, and their moral and mental inferiority in this arm of the service was apparent. However, the recruits now being transferred from the line and assigned the company from Columbus Barracks and Fort Slocum are of far better material than those formerly received from the latter station, and present appearances indicate that fairly good hospital corps men will be graduated in the future, provided there is no falling off in the grade of material furnished.

On April 18, 1905, the company was moved from its cramped and insanitary quarters in the lower end of the post, and is now quartered in an old, abandoned barrack building formerly occupied by two companies of the Engineer Corps. This building is soon to be torn down to make way for the construction of the War College building and grounds, and the material used in the completion of the heating plant of the new college. As these quarters are but temporary and soon to be demolished, arrangements should be made at once for a new barracks and school building for this organization, preferably on the site of the new army general hospital.

As in former years the company was utilized during the latter months of the year in the instruction of the student candidates at the Army Medical School, the student body attending and taking an active part in the weekly inspections of the organization and barracks and receiving thoro and practical instruction and experience in the different branches of medical administration, particularly that pertaining to detachments of the Hospital Corps.

A large and well-equipped gymnasium, located in the main assembly room, on the second floor of the company barracks, was completed and placed at the disposal of the members of the organization the latter part of the year.

A great improvement has been observed in the mental and physical qualifications of the recruits received since the discontinuance of the custom of examination by civilian physicians at stations and it is believed that the service will be decidedly benefited by the change, which should result in the elimination of undesirable characters before assignment to organizations. In the employment of this system disability discharges erroneously given as "in line of duty" will be appreciably reduced, and the advantage to the service in weeding out the undesirable element at the very outset is apparent.

COMPANY "B."

Considerable difficulty was experienced in getting a sufficient number of recruits to fill the classes in Company B, Hospital Corps, during the year, yet the men received from depots compared most favorably in character and intelligence with the class of recruits formerly received from recruiting stations.

The building in the post known as No. 38, which was assigned to this company for purposes of instruction, was condemned by the Inspector-General and vacated by the company August 25, 1905. Another building was assigned by the post commander for diet kitchen and lecture rooms. The lack of proper facilities for instruction has always been felt, and in order that the efficiency of the company may be increased better accommodations are deemed absolutely necessary. It is recommended that permanent barracks be erected for the company on a suitable site near the army general hospital, Presidio of San Francisco, Cal.

The following statistics for the year are self-explanatory:

Reported during the year	241
Entered classes	228
Completed course	173
Graduated	79
Removed from classes as being illiterate or worthless	9
Deserted	40
Discharged	35
Whole number on duty since company was organized	4,106

ARMY NURSE CORPS (FEMALE).

At the beginning of the fiscal year there were 98 nurses in service. The two vacancies were filled within two days, which brought the corps to its full strength.

Thirty-six appointments, 6 of whom had previous service, were made to the corps during the year from the 346 applications for admission received.

On June 30 the corps was distributed as follows:

United States Army general hospital, Presidio of San Francisco	42
United States Army general hospital, Fort Bayard	18
Division hospital, Manila	17
Base hospital, Iloilo	2
Camp Keithley, Mindanao	5
Zamboanga, Mindanao	5
Fort William McKinley, Rizal	3
En route to the Philippines division	3
Home awaiting discharge	2

There was one case of serious illness in the corps, with no death, during the year.

The larger compensation ($60 per month), opportunities for advance in pay, both without as well as with advance in responsibilities, cumulative leave up to three months, provision for all living expenses, including subsistence and laundry, without cost to the nurses, offered by the Isthmian Canal Commission has attracted a number of desirable nurses and a large contingent of ex-army nurses, and caused the smallest eligible list from which appointments could be made to the corps since its organization.

Recommendations for similar provisions for army nurses have been made, and as time goes on the wisdom and necessity for such become increasingly evident.

The past year marks some progress in the betterment of the provisions for the corps. The allowance of 30 cents per diem in lieu of the ration has removed one cause of dissatisfaction and has been received by the nurses with appreciation and gratitude.

UNITED STATES ARMY GENERAL HOSPITAL, WASHINGTON BARRACKS, D. C.

All buildings are in poor repair and inadequate in every way for their purposes. Constant repairs are necessary to the heating and plumbing systems to keep the buildings habitable. No new construction has been undertaken during the year. It will be necessary to keep these old buildings in fair repair and fit for occupancy for about two years before the new general hospital, authorized during the last session of Congress, is completed.

As heretofore, this hospital has served as the post hospital for Washington Barracks, and during the last year 521 cases were admitted and treated therein, divided as follows: Medical, 260; surgical, 143, and venereal, 118. These with the 55 cases remaining on sick report at the beginning of the year make a total of 576 cases of all classes treated. Eight deaths occurred, 5 from disease and 3 from external causes.

Sixty major and 68 minor operations constitute the surgical work performed during the year, 124 of which operations were reported as successful and 4 partially so.

The site for the new hospital near the Soldiers' Home has been purchased and Congress has appropriated $200,000 for the purpose of construction. The hospital has been officially designated the "Walter Reed, U. S. Army General Hospital," in honor of the late Maj. Walter Reed.

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

During the last calendar year 588 patients were treated in this hospital, of which 35 were officers of the Army and 5 were officers of the Navy. The admissions were classified as follows: Rheumatism—chronic, articular, 126; rheumatism—chronic, muscular, 68; rheumatism—subacute, articular, 27; rheumatism—acute, articular, 15; rheumatism—acute, muscular, 5; nephritis, 26; arthritis—rheumatic and gouty, 13; lumbago, 14; stomach troubles, 16; neuritis, 16; malarial fever, cachexia, etc., 26; heart disease, 12; neurasthenia, 10; sciatica, 11; other diseases, 203. Of the total number of patients treated, 432 were returned to duty or returned to their homes, 53 were discharged for disability, 2 died, 16 were otherwise disposed of, and 85 remained under treatment at the end of the year.

UNITED STATES ARMY GENERAL HOSPITAL, FORT BAYARD, N. MEX.

The most important addition to the hospital during 1905 has been a building of brick, to be used as a dining room, kitchen, and diet kitchen for the enlisted men's infirmaries. It is situated between the main infirmary building and the annex and is connected by porches with both of these buildings.

The number of cases under treatment December 31, 1904, was 330; on December 31, 1905, 346.

The total number of cases treated during the calendar year, excluding minor ailments occurring among men on duty, was 682. There were two cases of abscess of the liver and one of tuberculous nephritis. The remaining 697 cases were cases of pulmonary tuberculosis. The classification of these cases followed is that proposed by a committee of the National Association for the Study and Prevention of Tuberculosis at the 1905 meeting of that association, which has been generally adopted by sanatoria for tuberculosis.

CLASSIFICATION ON ADMISSION.

Class I. Slight initial lesion in the form of infiltration, limited to the apex or a small part of one lobe.

No tuberculous complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances or rapid loss of weight).

Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours, especially after rest.

Expectoration usually small in amount or absent.

Tubercle bacilli may be present or absent.

Class II. Moderately advanced.

No marked impairment of function, either local or constitutional.

Localized consolidation moderate in extent, with little or no evidence of destruction of tissue.

Or disseminated fibroid deposits.

No serious complications.

Class III. Far advanced.

Marked impairment of functions, local and constitutional.

Localized consolidation intense.

Or disseminated areas of softening.

Or serious complications.

Class IV. Acute miliary tuberculosis.

CLASSIFICATION ON DISCHARGE SHOWING THE RESULT OF TREATMENT.

Progressive (unimproved). All essential symptoms and signs unabated or increased.

Improved. Constitutional symptoms lessened or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli usually present.

Arrested. Absence of all constitutional symptoms; expectoration and bacilli may or may not be present; physical signs stationary or retrogressive; the foregoing conditions to have existed for at least two months.

Apparently cured. All constitutional symptoms and expectoration with bacilli absent for a period of three months; the physical signs to be those of a healed lesion.

Cured. All constitutional symptoms and expectoration with bacilli absent for a period of two years under ordinary conditions of life.

The following table shows the results obtained in treatment of all cases of pulmonary tuberculosis which were present one month or more:

Class on admission.	Number of cases.	Apparently cured.		Arrested.		Improved.		Unimproved.		Died.	
		No.	Per ct.	No.	Per ct.	No.	Per ct.	No.	Per ct.	No.	Per ct.
Class 1	54	18	33.33	21	38.89	9	16.67	6	11.11	0	0
Class 2	260	23	8.85	90	34.62	84	32.3	62	23.85	1	.38
Class 3	314	0	....	51	16.24	99	31.53	138	43.95	26	8.28
Class 4	18	0	....	0	....	0	....	0	....	18	100.00
Total	646	41	6.35	162	25.08	192	29.72	206	31.89	45	6.96

The advantages of sanatorium treatment can not be fairly tested in cases which reach a fatal termination shortly after admission nor in those of patients whose stay has been brief. The following table shows the result of treatment in all cases of pulmonary tuberculosis which remained six months or more:

Class on admission.	Number of cases.	Apparently cured.		Arrested.		Improved.		Unimproved.		Died.	
		No.	*Per ct.*	*No.*	*Per ct.*	*No.*	*Per ct.*	*No.*	*Per ct.*	*No.*	*Per ct.*
Class 1	37	18	48.65	12	32.43	3	8.11	4	10.81	0	0
Class 2	174	22	12.64	70	40.23	44	25.29	37	21.26	1	.58
Class 3	211	0	....	46	21.8	68	32.23	89	42.18	8	3.79
Class 4	2	0	....	0	....	0	....	0	....	2	100.00
Total	424	40	9.43	128	30.19	115	27.12	130	30.66	11	2.60

Forty-eight deaths occurred in the year 1905. Of these, two resulted from abscess of the liver. The remainder were from tuberculosis, 45 dying of pulmonary tuberculosis complicated or uncomplicated by tuberculosis of other organs and one of tuberculous nephritis without pulmonary involvement. It will be observed from the subjoined table that 36 deaths occurred within the first six months after admission or readmission:

	Weeks—				Months—		Years—			Total.
	1.	2.	3.	4.	2 to 6.	7 to 12.	2.	3.	4.	
Time of death of 40 cases of tuberculosis under continuous treatment	4	3	1	6	18	6	2	1	0	40
Time of death of 6 cases not under continuous treatment:										
(*a*) Reckoned from last admission	2	....	....	....	3	1	....	....	....	6
(*b*) Reckoned from original admission	....	....	....	....	....	1	2	2	1	(6)
Total	....	....	....	....	....	....	....	....	....	46

Considerable work has been done in the pathological laboratory in the study of the leucocytes of the blood in tuberculosis after the method of Arneth. It would be premature to draw positive conclusions at the present time, but it seems probable that this method will be of value in determining the prognosis and the fact of cure.

UNITED STATES ARMY GENERAL HOSPITAL, PRESIDIO OF SAN FRANCISCO, CAL.

The number of cases treated in this hospital during the year shows a decrease of 530 admissions over 1904. Of these admissions only 553 out of a total of 1,757 cases were from the Philippines Division, a considerable decrease compared with the number of admissions from that source last year. Likewise the number of admissions from the United States for the corresponding period was decreased by about one-fourth. There was also a smaller number of soldiers discharged on surgeon's certificate of disability than during the previous year; while a decrease is also noted in the number of deaths and in the number of men transferred to the Government Hospital for the Insane. Of the 38 deaths 5 were due to tuberculosis. The following is a numerical statement of the admissions and dispositions of the sick during the calendar year 1905:

	From islands.	From United States.	Total.
Remaining in hospital Dec. 31, 1904	131	199	330
Total admissions during period	553	1,204	1,757
For gunshot wounds	19	8	27
For diarrhea and dysentery	129	57	186
For malarial fevers	12	21	33
For typhoid fever	3	3	6
For rheumatic affections	11	35	46
For venereal diseases	54	140	194
For injuries	36	150	186
For insanity	31	17	48
For alcoholism	1	33	34
For all other causes	257	740	997
Total returned to duty	200	723	923
Total discharged for disability	86	86	172
Total discharged, expiration of service	91	33	124
Deaths from all causes	12	26	38
Desertions	12	7	19
Transferred to the Government Hospital for the Insane	24	5	29
Transferred to general hospital, Hot Springs	4	13	17
Transferred to general hospital, Fort Bayard	57	20	77
Otherwise disposed of	90	295	385
Remaining in hospital Dec. 31, 1905	108	195	303

Many important operations were done at this hospital, and the usual excellent results obtained.

PROVIDENCE HOSPITAL.

The act approved March 3, 1905, having appropriated $19,000 for the support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with Providence Hospital by the Surgeon-General of the Army, the relief afforded was as follows:

Patients in hospital July 1, 1905	91
Admitted during the year	1,051
Total number treated	1,142
Average number admitted per month	95
Number remaining in hospital June 30, 1906	96
Total number of days' treatment afforded	35,092
Average number of days' treatment per patient	31
Average number of patients treated per day	96
Longest term of treatment (days)	365
Shortest term of treatment (days)	1
Number of patients in hospital during the whole year	6

HOSPITAL CONSTRUCTION AND REPAIR.

During the last fiscal year new modern hospitals were contracted for at Fort Omaha, Nebr., Fort Sam Houston, Tex., Fort Warren, Mass., Fort Wood, N. Y., the Presidio of Monterey, Cal., and an isolation hospital for the treatment of contagious diseases and the proper disinfection of bedding, patients' effects, etc., was contracted for at Fort Myer, Va.

Contracts were also entered into for enlarging the hospitals at Fort Casey, Wash., Plattsburg Barracks, N. Y., Fort Revere, Mass., and Fort Rodman, Mass., and the hospitals at Fort Gibbon, Alaska, and Fort St. Michael, Alaska, were enlarged and improved.

Plans and specifications were prepared for new hospitals at Fort Mackenzie, Wyo., Fort Michie, N. Y., and Whipple Barracks, Ariz., it having been found impossible to build from previous plans owing to the location of these posts and the increased cost of material and labor. Experience has demonstrated that hospitals of less than one-half the necessary capacity can not be erected at either one of these posts for $20,000, which is the limit of cost fixt by section 1136 of the Revised Statutes of the United States.

In addition to the above, plans and specifications were prepared for additions and improvements needed for the hospitals at Fort Harrison, Mont., Fort Logan, Colo., and Fort Wright, Wash.

Funds were also provided to improve the hospital accommodations in the Philippine Islands, to enlarge and improve the United States Army general hospitals at Fort Bayard, N. Mex., the Presidio of San Francisco, Cal., and for necessary repairs at the Army and Navy General Hospital, Hot Springs, Ark., and for such repairs as were absolutely necessary for the United States Army General Hospital, Washington Barracks, D. C.

All hospitals at military posts established and occupied have been kept in repair and modernized so far as funds would permit. In a few cases new modern plumbing fixtures were provided for operating rooms in connection with tile floors and other sanitary improvements.

The disastrous earthquake on the Pacific slope damaged almost all the hospitals in the Department of California and prompt action was necessary to place these hospitals in a safe condition for occupancy. Inability to contract for new hospitals at several posts enabled this office to meet the emergency until such time as a special appropriation could be secured.

Attention is again invited to section 1136 of the Revised Statutes of the United States enacted March 3, 1859, when much different conditions prevailed, limiting the cost of permanent structures to $20,000, unless special authority be obtained from Congress to use a larger amount. It is again recommended that this section be so amended as to read "fifty thousand dollars" instead of "twenty thousand dollars," as at present. This section of the Revised Statutes, with its present limitation of the cost of public structures, causes delay, increased work in the preparation of plans and specifications, inconvenience and hardship to patients requiring hospital treatment, and unnecessary expense to the Government. Plans and specifications for the smallest hospitals were prepared for use at Fort Michie, N. Y.; Fort Mackenzie, Wyo.; Fort Warren, Mass., and Whipple Barracks, Ariz., and altho the plans for these hospitals were alike it was only possible to contract for the hospital at Fort Warren, Mass., the bids for the others showing an advance in cost of from 20 to 50 per cent, thus making it necessary to defer construction until such time as Congress grants special authority and authorizes the use of sufficient funds to erect hospitals of suitable capacity for these posts. Barracks and quarters are provided for additional troops, and the garrisons become enlarged, but under present conditions it is not possible for the Medical Department to erect new hospitals when such are necessary. For these reasons it is believed that effort should be made to have the section referred to so amended as to increase the amount of money which can be used for any hospital building.

New quarters for hospital corps sergeants were completed during the past fiscal year at Fort D. A. Russell, Wyo., the Depot of Recruits and Casuals, Angel Island, Cal., and at Fort St. Michael, Alaska. In addition to the above the quarters at various posts have been repaired and improved to such extent as funds would permit. Owing to the increased cost of material and labor and the excessive cost of construction at various posts it was not possible to meet all requirements from the limited amount appropriated for the purpose, and even with the increased appropriation for the coming fiscal year it will not be feasible to meet the demands for new quarters at various posts where such buildings are absolutely necessary.

MEDICAL AND HOSPITAL SUPPLIES.

The amount estimated for by this office for the fiscal year ending June 30, 1906, was $700,000. This was reduced by the War Department to $600,000, which amount was appropriated by Congress.

Serviceable field medical equipment and supplies have been issued to the militia, transferred to other branches of the Government, and sold during the year, in accordance with law and regulations, in considerable quantities. Accounts rendered to date, which cover all or approximately all of these transactions, exhibit the first cost of the supplies so issued and sold as summarized in the following table. Except where otherwise specified the amounts indicated accrue to the medical and hospital appropriation, thus enabling the Department to replace the supplies in question for the needs of the Army. Some of these accounts were still pending June 30; accordingly the amounts here exhibited exceed those shown in the financial statement with which this report begins, the latter including only those transactions which had been finally settled on that date.

A. Supplies issued to States and Territories for the use of the organized militia, under section 1661, Revised Statutes:

Connecticut	$81.47	
Florida	678.43	
Georgia	626.85	
Illinois	124.80	
Indiana	212.50	
Kentucky	191.13	
Massachusetts	11.24	
Nebraska	182.11	
New Jersey	1,018.50	
New Mexico	57.00	
North Dakota	98.50	
Virginia	248.89	
West Virginia	316.73	
Wyoming	231.66	
Total		$4,079.81

B. Sales to States under section 17, act of January 21, 1903 (32d Statutes, 778):

Connecticut	$106.68	
Indiana	1,048.86	
Ohio	311.15	
Pennsylvania	347.04	
Total		1,813.73

C. Supplies transferred to other Bureaus and Departments of the Government:		
Quartermaster's Department, U. S. Army	$88.60	
Isthmian Canal Commission	31,789.58	
Navy	2,443.54	
Marine Corps	1,692.60	
Immigration Service	1,520.94	
Total		$37,535.26
D. Sales to the civil government of the Philippine Islands		3,992.07
E. Sales to local hospitals in the Philippine Islands		[a]4,065.76
F. Sales to civilian employees of the Army		[b]1,777.07
Grand total		53,263.70

In addition to the medical supplies issued to the Panama Commission from stock, and for which reimbursement was made, a very large amount was purchased for them thru the New York medical supply depot, the bills for which were sent to the Commission for payment.

The fire which followed the earthquake of April 18 completely destroyed the medical supply depot at 655 Mission street, with all its contents, valued at $357,391.62.

A new depot was promptly established at the Presidio near the general hospital, a large circus tent being used to shelter the supplies, which were obtained by purchases in other cities on the Pacific coast, by donations, and by shipments from the St. Louis medical supply depot. Five carloads of medical supplies were sent by an express train, together with quartermaster's supplies, from the St. Louis depot to San Francisco on April 21. These reached their destination. First Lieut. W. A. Powell, assistant surgeon, with a sergeant and two privates, Hospital Corps, accompanied these supplies to insure their prompt and safe delivery at the Presidio. A complete field hospital (No. 5) went with this shipment, and an additional field hospital (No. 1) with additional supplies were taken to San Francisco by Captain Gilchrist, who was ordered with Company A, Hospital Corps, from Washington; 19 additional carloads of medical supplies were shipped on April 26 from St. Louis. First Lieutenant Hathaway and a detachment, Hospital Corps, accompanied this shipment.

The medical supply officer at San Francisco, Lieut. Col. Louis Brechemin, issued to civil hospitals and other agencies connected with relief work medical stores as follows:

Donations, money value	$18,472.16
Stores purchased	17,312.57
Medical depot supplies	19,283.07
Total	55,067.80

Medical supplies purchased to the value of $14,963.56 remained on hand when the issue of relief medical supplies was suddenly discontinued by order of the division commander. These were taken up as medical depot supplies and the relief appropriation credited with their value. The total net disbursements for medical purposes from the relief appropriation amounted to $61,300.

A metal covered first-aid packet has been adopted by the joint board of medical officers of the Army and Navy, whose recommendations have been noted heretofore. This packet does away with the necessity for a packet pouch for its transportation by the soldier, being fastened by two hooks to eyelets on the back of the ammunition belt. The contents are also changed, the triangular handkerchief being replaced by two sublimated gauze bandages.

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[a] Of this amount $3,917.18 was covered on July 23, 1906, into the general treasury as "Miscellaneous receipts," and thus became unavailable to replace the supplies so sold.

[b] This entire amount was covered into the general treasury as "Miscellaneous receipts."

ARMY MEDICAL MUSEUM.

The total number of specimens in the Army Medical Museum at the end of the fiscal year June 30, 1906, was 35,229. The following statement shows in detail the additions and changes in the different sections:

Pathological section:		
In museum June 30, 1905		12,659
Discarded		17
		12,642
Received during the year		168
In museum June 30, 1906		12,810
Anatomical section:		
In museum June 30, 1905		1,170
Discarded		1
		1,169
Received during the year		28
In museum June 30, 1906		1,197
Section of comparative anatomy:		
In museum June 30, 1906		1,410
Microscopical section:		
In museum June 30, 1906		12,916
Miscellaneous section:		
In museum June 30, 1905		2,934
Received during the year		17
In museum June 30, 1906		2,951
Provisional pathological section:		
In museum June 30, 1905		1,051
Discarded	24	
Donated to McGill Medical College, Montreal, Canada	2	
		26
		1,025
Provisional anatomical section:		
In museum June 30, 1906		378
Photographic series:		
In museum June 30, 1905		2,536
Received during the year		6
In museum June 30, 1906		2,542

RECAPITULATION.

Specimens in museum June 30, 1905	35,054
Discarded and donated	44
	35,010
Added during the year	219
Specimens in museum June 30, 1906	35,229

The following are some of the interesting specimens received during the fiscal year ending June 30, 1906:

Pathological.—Specimen 13147: An eight day human embryo; contributed by Dr. H. L. E. Johnson, Washington, D. C. Specimen 13199: Four months human fetus discharged with membranes intact; contributed by Dr. C. A. Weaver, Washington, D. C. Specimens of ectopic gestation—two cases, No. 13151, right tubal; 13177, at about sixth week—in woman 26 years old; operation in each case by Dr. J. W. Bovée, Washington, D. C. Specimen 13169: Dermoid cyst, containing bone and hair; operation by Dr. T. J. Kelley, jr., Washington, D. C.

Malformations.—Specimen 13142: Pseudencephalous infant, from woman who had once before borne an anencephalous infant; contributed by Dr. D. C. Chadwick, Washington, D. C. Specimen 13186: Tortoise with two heads, *Dicephalus dibrachius;* contributed by Mr. Edwin S. Schmid, Washington, D. C. Specimen 13200: Two puppies without forelegs, *Abrachius;* contributed by the Misses Richardson, Queens, Long Island, New York. Yellow fever specimens, 13078–85, from one person, contributed by Dr. H. B. Jones, New Orleans, La.; 13086–94, from one person, contributed by Dr. O. L. Pothier, New Orleans, La.; 13095–13100, from one person, contributed by Dr. O. L. Pothier, New Orleans, La. Smallpox specimens 13112–20: Series of specimens showing appearances in smallpox, contributed by Dr. W. R. Brinckerhoff, Boston, Mass. Specimen 13187: Gangrene of toe in smallpox, contributed by Dr. L. Eliot, Washington, D. C. Specimen 13126: Syphilitic gummata of testicle, contributed by Dr. Wm. C. Borden, major, surgeon, U. S. Army. Specimen 13130: Diphtheria of lung, boy, age 3 years, contributed by Dr. Isabel H. Lamb, Washington, D. C. Specimens of tuberculosis: 13191–2, tubercular mesenteric glands and broncho-pneumonia, boy, 7 years old; contributed by Dr. F. J. Shadd, Washington, D. C. Specimens 13122–23, tubercular abdominal glands and spleen, man, age 29. Specimen 13129, basilar meningitis, man, age 31. Specimens 13183 and 13189, tubercular greater omentum and lung, man, age 48; all contributed by Dr. D. S. Lamb, Army Medical Museum. Amebic dysentery: Specimens 13170–1, ulcerated colon, man, age 26, of nearly six years duration; contributed by Dr. Wm. H. Arthur, major, surgeon, U. S. Army. Specimen 13034, angioma of neck, man, age 50; operation by Dr. F. P. Vale, Washington, D. C. Specimen 13148, cavernous angioma of orbit, Chinaman, age 55; operation by Dr. V. E. Watkins, contract surgeon, U. S. Army; contributed by Dr. B. H. Dutcher, captain, assistant surgeon, U. S. Army. Specimen 13141, abscess of lung, from infant, 18 months old, contained diplococcus and streptococcus; contributed by Dr. S. S. Adams, Washington, D. C. Specimens 13194–95, croupous pneumonia and granular kidneys, man, age 35; contributed by Dr. D. S. Lamb, Army Medical Museum. Specimen 13125, ulcer of stomach, woman, age 65; contributed by Dr. T. N. Vincent, Washington, D. C. Specimen 13140, papilloma of rectum, woman, age 23; operation by Dr. D. G. Lewis, Washington, D. C. Specimen 13103, abscess of mesentery of appendix, woman, age 45; operation by Dr. E. A. Balloch, Washington, D. C. Specimen 13185, abscess of liver, woman, age 38; contributed by Dr. E. A. Balloch, Washington, D. C. Specimens 13164 and 13166, adeno-carcinoma of liver and stomach, man, age 64; contributed by Dr. Wm. H. Arthur, major, surgeon, U. S. Army. Specimen 13134, acute yellow atrophy of liver, woman, age 17. Specimens 13145 and 13181, hypertrophic cirrhosis of liver and cirrhotic kidney, man, age 40; contributed by Dr. D. S. Lamb, Army Medical Museum. Specimen 13190, small granular kidney, man, age 28; contributed by Dr. R. T. Holden, Washington, D. C. Specimen 13128, calculi from bladder of colt; contributed by Dr. Geo. V. Bready, V. S., Silver Springs, Md. Specimen 13124, sebaceous cyst from scrotum, man, age 65; operation by Dr. D. P. Hickling, Washington, D. C. Specimen 13070, pregnant uterus at fifth month with fibroids, hysterectomy, woman, age 41; contributed by Dr. D. C. Chadwick, Washington, D. C. Specimen 13175, sarcoma of uterus with purulent infiltration and necrosis; operation by Dr. J. W. Bovée. Specimen 13036, salpingitis, woman, age 45; operation by Dr. W. A. Warfield, Washington, D. C. Specimen 13138, fibro-myoma of round ligament, woman, age 44; operation by Dr. D. G. Lewis, Washington, D. C. Specimen 13152, bilateral chronic mastitis of three years' duration, woman, age 30; operation by Dr. W. P. Carr, Washington, D. C. Specimen 13179, epithelioma of mamma, woman, age 47; operation by Dr. C. C. McCulloch, jr., major, surgeon, U. S. Army. Specimens 13143–44, fracture and dislocation of vertebræ and compression, hemorrhage and softening of spinal cord, from a crush, a miner, age 28; contributed by Dr. C. S. White, Washington, D. C. Specimen 13137, sarcoma of tibia, woman, age 17, amputation; contributed by Dr. E. M. Hasbrouck, Washington, D. C. Specimen 13163, hemorrhage into brain of new-born infant; contributed by Dr. B. L. Hardin, Washington, D. C. Specimen 13201, cyst of brain; contributed by Dr. W. M. Barton, Washington, D. C. Specimen 13198, hypertrophy of toe nail, woman, age 88; contributed by Dr. Geo. W. Wood, Washington, D. C. Specimens 13037-69, series of Baretta preparations showing skin diseases; purchased. Specimen 13121, flint arrow removed from neck of soldier, forty-six years after injury; contributed by John Fogerty, Washington, D. C. Series of preparations prepared by Dr. W. M. L. Coplin, by his gelatin method: Specimen 13071, osteosarcoma of lung; specimens 13072-73, pulmonary tuberculosis; specimen 13074, typhoid ileum; specimen 13075, tubercular peritonitis; specimen 13076, hemorrhagic infarction of kidney; specimen 13077, chronic parenchymatous nephritis and hemorrhagic pyelitis; specimen 13078, chronic interstitial nephritis with cyst.

Anatomical.—Specimen 4063, brain and nervous system of monkey; purchased. Specimens 4064-89, series of 26 fetal skulls; purchased. Specimen 4090, celloidin injection of kidneys in colors; contributed by Dr. Ferdinand Schmitter, contract surgeon, U. S. Army.

Miscellaneous.—Specimens 3045-47, three ophthalmoscopes: 3045 Galezowski's demonstrating opthalmoscope, 1862; 3046 Peppmueller's demonstrating ophthalmoscope, 1877; 3047 Hirschberg's refraction ophthalmoscope, 1877; contributed by Dr. Chas. H. May, New York City. Specimen 3048, Japanese kanten or seaweed isinglass, used in Japan for food; contributed by Dr. H. M. Smith, U. S. Bureau of Fisheries. Specimen 3049, medal commemorative of exhibit of Medical Department, U. S. Army, at Louisiana Purchase Exposition. Specimen 3057, earthenware cone filler, 1871; contributed by Prof. Chas. E. Munroe, Washington, D. C.

LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

The following table shows the additions made to the library during the fiscal year 1905-6:

Description.	On hand June 30, 1905.	Added during fiscal year.	Total June 30, 1906.
	Volumes.	*Volumes.*	*Volumes.*
Medical journals	47,313	1,317	48,630
Medical transactions	7,465	259	7,724
Bound theses	2,319	123	2,442
Bound pamphlets	2,875		2,875
Other medical books	95,320	1,800	97,120
Total	155,292	3,499	158,791
Medical theses	71,150	2,580	73,730
Medical pamphlets	200,701	5,267	205,968
Total	271,851	7,847	279,698

There were presented to the library during the year 912 books and 10,969 pamphlets and journals.

Volume XI, second series of the Index Catalog, includes the letters "M" and "N" from "Mo" to "Nyström," and forms a volume of 858 pages. The manuscript for Volume XII is in course of preparation.

Six additional book stacks, sufficient to accommodate the regular increase of the library for several years, have been completed during the year.

ARTIFICIAL LIMBS AND APPARATUS.

Under the laws relating to artificial limbs, apparatus, or commutation therefor, orders on manufacturers were given during the fiscal year for 236 artificial legs, 5 arms, 2 feet, and 1 apparatus. Commutation certificates were issued for 2,066 cases of amputated leg, 2,138 of amputated arm, 58 of amputated foot, and 2,310 cases of the loss of the use of a limb.

Under the act of June 17, 1870, and subsequent amendments thereto, 23,093 disabled soldiers and sailors have been furnished artificial limbs or apparatus, or have received commutation in money as follows: Total number benefited to June 30, 1906, 23,093; died, 10,494; dropt from the rolls, 592; rejected after one or more payments, 554; remaining on rolls at the end of the fiscal year, 11,453.

It is estimated that the sum of $120,000 will be required to pay the claims coming due during the fiscal year ending June 30, 1908.

APPLIANCES AND TRUSSES.

One hundred and sixty-four appliances were issued during the fiscal year and 806 trusses were furnished and fitted.

REMARKS AND SPECIAL RECOMMENDATIONS.

In accordance with my recommendations of last year, the Secretary of War, on October 21, ordered the establishment at the United States Military Academy, West Point, of a Department of Military Hygiene, with the senior medical officer at the academy as the head of the department and a member of the academic board.

This is a great step forward and will no doubt have a very decided effect in advancing the cause of sanitation in the Army.

New standard tables of physical proportions for admission of candidates to the United States Military Academy at West Point have been adopted upon recommendation of this office; in these tables the age factor has been given proper consideration in determining the physical requirements.

In pursuance of my recommendation of last year a permanent board for the study of tropical diseases in the Philippines has been detailed, Assistant Surgeons Ashburn and Craig constituting the present board.

Experiments have been made during the year with the so-called "galloping ambulance," a British invention, two of which have been purchased for the department.

This vehicle is intended for rapid ambulance service with mounted troops, and the results obtained with it so far have been very satisfactory.

A motor ambulance has also been under trial, and there is no doubt that some type of that class of vehicle will form a necessary part of ambulance equipment for both post and field.

A portable type of field water sterilizer of German manufacture was tested by a board of medical officers, but in the opinion of the board had no advantages to recommend it as superior to the form at present in use. In view of the importance of a supply of pure water in the field, arrangements are being made for the purchase and trial of two different types of a wheeled sterilizer capable each of supplying a regiment with potable water.

The McCall incinerator for the cremation of excreta in the field has been given further trial with very satisfactory results.

I renew my recommendations of last year in regard to the systematic physical training of all soldiers, and strongly urge that the proper steps be taken to carry into effect those recommendations. Commencing with a gymnastic course to develop gradually the weak points in each soldier and give him agility, strength, and the control of his muscles, the course should go on thru outdoor athletics to military gymnastics or gymnastics applied to overcoming the obstacles which the soldier is likely to meet with in warfare.

Recent orders have prescribed gymnastics and outdoor athletics as part of the regular garrison training of the soldier, and, while West Point furnishes each year a number of officers qualified as instructors, it is necessary to provide schools in which officers derived from other sources and noncommissioned officers may qualify as instructors; it is also necessary to prescribe a regular graded course of instruction.

ANEMIA COMMISSION.

Capt. Bailey K. Ashford, assistant surgeon, continued on duty with this commission during the year. The commission treated and cured thousands of cases of uncinariasis and, as a result of further experience, came to the conclusion that at least 80 per cent of the entire population of Porto Rico was infected. It also concluded that the most effective means of prevention of the disease lies in the universal treatment of the persons affected.

ARMY AND NAVY JOINT BOARD.

A joint board of medical officers of the Army and Navy, which met in Washington in January, 1906, made certain recommendations with a view of improving first-aid dressings and unifying, as far as practicable, the equipments of the medical departments of the Army and Navy. The recommendations of the board were approved by the Secretary of War and published to the Army in General Orders, No. 84, War Department, May 5, 1906.

Their recommendations may be summarized as follows: The adoption of an improved first-aid packet and a shell-wound dressing; a modification of the present army litter by the addition of a body strap and a certain proportion of framed covers; the adoption of the "Stokes splint stretcher" for use on transports, hospital ships, and at seacoast artillery stations; that experiments be instituted to develop a practical wheeled litter; the adoption of the travois; the adoption of the "Pulman pack outfit" for the service of the advanced dressing stations in the field; the adoption of the "rapid-transit galloping ambulance;" certain modifications in the contents of hospital-corps and orderly pouches; that the general equipment be the same in Army and Navy while in active service on land; that the general arrangement of the titles of the medicines of the supply table in the two services be the same; the adoption of a new form of diagnosis tag; the adoption of a larger arm brassard, with specifications for the same. Finally, the board stated the special need of a hospital ship, designed and built for this purpose only, for each branch of the service, and recommended that plans and specifications for such a ship be submitted for consideration. Further, the desirable features to be obtained in selecting and equipping a hospital ship taken from the merchant marine were stated.

RELIEF WORK IN SAN FRANCISCO, CAL.

Following the great earthquake and fire which nearly destroyed the city of San Francisco on April 18, 1906, and the days following, most admirable sanitary and emergency work was done by the officers and men of the medical department under the able direction of Lieut. Col. G. H. Torney, who was at the time acting chief surgeon of the

Department of California, and his successor in that office, Col. C. L. Heizmann.

Capt. James M. Kennedy, assistant surgeon, was placed in command of the hospital and Lieutenant-Colonel Torney, upon request of the mayor and the president of the health commission of San Francisco, was placed at the head of a joint committee of the city, State, and Federal authorities to control the sanitation of the city in addition to his duties as chief surgeon of the department.

General Funston's order placing Colonel Torney in charge was as follows:

SPECIAL ORDERS, No. 37. HEADQUARTERS PACIFIC DIVISION, *San Francisco, Cal., April 20, 1906.*

2. Lieut. Col. George H. Torney, Medical Department, U. S. Army, is hereby placed in charge of the sanitary arrangements for the city of San Francisco. All his orders must be strictly obeyed by all parties whomsoever.

By command of Brigadier-General Funston:

S. W. DUNNING,
Military Secretary.

The unrestricted power granted by this order enabled the medical department of the Army to act promptly and effectively in meeting the emergency problems of sanitation which presented themselves.

All possible assistance was rendered to the sick and injured in the city as well as for the refugee camps. Company B, Hospital Corps, was sent from the Presidio with the troops and, under the command of Capt. Albert E. Truby, assistant surgeon, rendered valuable assistance during the days of the fire. All supplies from the medical supply depot were issued on the approval of the chief surgeon, including those sent to relief societies and to the city authorities.

Every effort was made to reduce the issue of supplies to a minimum consistent with the needs of the situation and the limited personnel available.

The medical-supply depot, which had been destroyed with all its supplies, was at first located under the general hospital, the space under the wards being used for this purpose; but, owing to the danger from fire and the limited amount of space, the location was changed to the plain just to the left of the hospital grounds, where tents were erected as storage and issue rooms. A large circus tent was afterwards secured by Lieut. Col. Louis Brechemin, deputy surgeon-general, in charge of the depot, which was used as an issue tent. All requisitions from camps and hospitals in the city were, after approval by the chief surgeon or the chief sanitary officer, sent to the supply depot and immediately issued, most of the persons needing the supplies bringing transportation with them and returning with the articles without delay. Where no transportation was brought it was furnished from the depot.

On April 19 orders were given the medical supply officer, St. Louis, to pack and prepare for shipment medical supplies equivalent to the supply table allowance for a population of 60,000 for four months, and on the 21st the first shipment of 5 carloads went forward by express under charge of a medical officer and detachment of the Hospital Corps, who had instructions not to leave the supplies until they were delivered to the medical supply officer in San Francisco. By

April 26 the entire shipment of 19 carloads had been forwarded by special trains. These shipments made the schedule time of passenger trains and were delivered without serious delay. The amount of the heavier nonexpendable articles was somewhat reduced from the allowance above mentioned and a complete field hospital and three regimental hospitals added. A medical officer and detachment of the Hospital Corps accompanied the second shipment.

Medical officers and members of the Hospital Corps, casually in the city en route to or from the Philippines Division were, by authority of the War Department, held for duty under the emergency.

Food, bedding, and clothing were issued from the general hospital to such persons as were in need prior to the establishment of regular relief stations, and the division headquarters, medical supply depot, and the chief surgeon's office were furnished with office furniture and stationery. Until the establishment of the various city hospitals all civilian patients were admitted without charge. May 3, 1906, the laundry at the general hospital was burned, greatly hampering the efficiency of that institution.

Company A, Hospital Corps, was sent from Washington Barracks, D. C., and established a field hospital at Golden Gate Park, which was of the greatest assistance in caring for the sick. One ward was devoted to maternity cases and one to contagious diseases. A contagious disease hospital was also established at Harbor View Park and placed under the charge of Doctor McKenzie, from Portland, Oreg. Valuable assistance was rendered to the general hospital and refugee camps by the physicians of the city whose offices were destroyed in the fire.

During the gradual withdrawal of the troops from the refugee camps and the substitution of civilian control, the sanitation of the camps remained under the supervision of members of the Medical Corps of the Army. These officers and the enlisted men serving with them conducted their work with the utmost skill in the trying position of dealing with a semimilitary command, being hampered by lack of knowledge of sanitation and discipline on the part of the majority of the people in the camps as well as lack of authority to carry out such measures as they considered proper.

THE EXPLOSION ON THE U. S. S. BENNINGTON.

In July, 1905, the U. S. S. *Bennington* was blown up in the harbor of San Diego, Cal. Medical attendance was at once rendered by Maj. William L. Kneedler, surgeon, U. S. Army, and the members of the hospital corps detachment on duty at the hospital at Fort Rosecrans, and a corps of nurses—enlisted men of the Hospital Corps—with a supply of surgical dressings and appliances was sent from the general hospital.

The efficient work of these members of the Medical Department received the highest commendation of the officers of the Army and Navy in San Diego at the time, and copies of these recommendations were submitted to the War Department for notation on the efficiency reports of the individuals concerned.

MEDICAL OBSERVERS WITH THE RUSSIAN AND JAPANESE ARMIES.

Upon the close of the war the medical observers representing the United States Army with the Russian and Japanese armies returned to their respective stations in the United States. The official reports of these officers have not as yet been made public.

DISCHARGES FOR DISABILITY—AMERICAN TROOPS.

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharges for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES.							
General diseases	440	33.64	203	48	189	....	18
Venereal diseases	199	15.21	3	24	172	....	11
Syphilis (secondary 127, tertiary 14, hereditary 1)	142	10.86	....	18	124	....	8
Gonorrhea (gonorrheal rheumatism 32, gonorrheal ophthalmia 8, chronic gonorrhea 8, other results of gonorrhea 4, gonorrheal epididymitis and orchitis 2, gonorrheal stricture 1)	55	4.20	3	6	46	....	3
Chancroid	2	.15	....	....	2	....	....
Tuberculosis (of the lungs 148, of other organs 9)	157	12.00	142	14	1	....	3
Articular rheumatism (chronic 36, acute 1)	37	2.83	33	4	....	....	1
Dysentery (amebic 9, mixed infection 3)	12	.92	12	....	....	....	....
Drug habit (morphine habit 9, cocaine habit 1, chloroform habit 1)	11	.84	....	2	9	....	....
Alcoholism, chronic	7	.54	....	1	6	....	1
Diabetes	7	.54	6	1	....	....	1
Malarial cachexia	3	.23	3	....	....	....	....
Cancer	2	.15	1	....	1	....	....
Other tumors	1	.08	....	1	....	....	....
Exophthalmic goiter	1	.08	1	....	....	....	....
Leukemia	1	.08	1	....	....	....	....
Anemia	1	.08	1	....	....	....	....
Lead poisoning, chronic	1	.08	....	1	....	....	1
Diseases of the organs of special sense	187	14.30	33	145	9	....	54
Errors of refraction	86	6.57	1	83	2	....	34
Diseases of the middle and internal ear (otitis media 41, deafness 12)	53	4.05	18	33	2	....	8
Other diseases of the eye (optic neuritis 3, vitreous opacity 3, atrophy of the optic nerve 2, defective vision 2, nystagmus 1, opacity of lens 1, enucleation of eye 1)	13	.99	4	8	1	....	2
Diseases of the globe (keratitis 5, retinitis 4, iritis 2)	11	.84	5	5	1	....	....
Amaurosis	7	.54	....	7	....	....	5
Cataract	6	46	3	2	1	....	1
Trachoma	4	.31	....	4	....	....	2
Diseases of choroid	4	.31	2	2	....	....	1
Amblyopia	2	.15	....	1	1	....	1
Snow blindness	1	.08	....	....	1	....	....
Diseases of the nervous system	169	12.92	78	71	20	....	13
Insanity	78	5.96	43	22	13	....	4
Epilepsy	38	2.91	4	33	1	....	6
Neuritis	11	.84	8	1	2	....	1
Other diseases of the nervous system (hysteria 3, masturbation 2, low order of mentality 1, general motor neurosis 1, chronic vertigo 1, cerebral tumor 1, muscular paralysis 1, hysterohemiplegia 1)	11	.84	4	4	3	....	2
Neurasthenia	7	.54	2	4	1	....	....
Other diseases of spinal cord (muscular atrophy 2, multiple sclerosis 2, lateral sclerosis 2, diffuse degeneration of spinal cord 1)	7	.54	6	1	....	....	....
Cerebral hemorrhage	4	.31	4	....	....	....	....
Chorea	4	.31	....	4	....	....	....
Paralysis without specified cause	3	.23	3	....	....	....	....
Neuralgia	3	.23	3	....	....	....	....
Locomotor ataxia	1	.08	1	....	....	....	....
General paralysis	1	.08	....	1	....	....	....
Melancholia	1	.08	....	1	....	....	....

Discharges for disability—American troops—Continued.

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Diseases of the circulatory system	154	11.77	54	98	2		56
Organic disease of the heart	107	8.18	38	69			44
Functional disease of the heart	21	1.61	5	14	2		5
Diseases of arteries and veins (varicose veins, 9; varicocele, 3; phlebitis, 3; hemorrhoids, 2; aneurism, 1; embolism, 1; other diseases of arteries, 1)	20	1.53	7	13			7
Angina pectoris	3	.23	2	1			
Other diseases of circulatory system (pseudo angina pectoris, 2)	2	.15	1	1			
Lymphangitis	1	.08	1				
Diseases of the digestive system	95	7.26	47	48		3	25
Hernia (inguinal, 64; ventral, 2; scrotal, 1; umbilical, 1)	68	5.20	26	42		3	23
Diseases of the intestines (diarrhea, chronic, 4; enteritis, 3; sprue, 1; chronic ulcers, lower rectum, 1)	9	.69	8	1			
Diseases of the stomach (gastritis, 3; dyspepsia, 2; ulcer of the stomach, 2)	7	.54	5	2			
Appendicitis	4	.31	4				
Diseases of the liver (cirrhosis, 1; biliary calculi, 1; hepatic abscess, 1; cholecystitis, 1)	4	.31	3	1			
Diseases of the teeth, gums, and alveoli	3	.23	1	2			2
Diseases of the organs of locomotion	80	6.12	36	44			14
Diseases of the joints (flat feet, 14; synovitis, 14; arthritis, 9; bunions, 9; ankylosis, 8; splay feet, 5; metatarsalgia, 1; hysterical kneejoint, 1; weakness of knee following operation, 1)	62	4.74	29	33			12
Diseases of the bones (curvature of the spine, 5; necrosis, 3; osteoma, 2; exostosis, 1; osteitis, 1)	12	.92	4	8			2
Muscular rheumatism	4	.31	3	1			
Diseases of tendons and muscles	2	.15		2			
Congenital malformations and arrested development	68	5.20		68			23
Diseases of the genito-urinary system	40	3.06	13	26	1		3
Incontinence of urine	20	1.53	1	19			2
Bright's disease	13	.99	9	3	1		
Diseases of testicles (orchitis, 2; undescended testicle, 2; enlargement of testicle, 1)	5	.38	2	3			
Stricture of urethra	1	.08		1			1
Floating kidney	1	.08	1				
Diseases of the respiratory system	37	2.83	15	22			10
Diseases of the lungs (chronic bronchitis, 8; asthma, 6; pleurisy, 5; anthracosis, 2; pulmonary emphysema, 1; chronic pneumonia, 1)	23	1.76	11	12			6
Chronic nasal catarrh	9	.69	2	7			2
Diseases of the thyroid body	3	.23		3			2
Other diseases of the respiratory system (hay fever, 1; shrunken chest, 1)	2	.15	2				
Diseases of the skin (corns and warts, 26; ulcers, 2; bromidrosis, 1; ichthyosis, 1; destruction of palmar tissue, 1)	31	2.37	3	26	2		12
Debility following operation and disease	6	.46	1	5			4
Old age and results	1	.08	1				
Total	1,308	100.00	484	601	223	3	232
INJURIES.							
Secondary results of injuries	43	27.56	3	40			13
Gunshot wounds	40	25.64	30		10		
Fractures	30	19.23	27		3		

Discharge for disability—American troops—Continued.

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharge for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Lacerated wounds	10	6.41	7		3	1	
Dislocations	7	4.49	6	1			1
Incised wounds	6	3.85	6				
Crushing	4	2.56	2		2		1
Frostbite	3	1.92	3				
Contusions	3	1.92	2		1		
Punctured wounds	3	1.92	3				
Muscular strain	2	1.28	1		1		
Burns and scalds	1	.64	1				
Burns by corrosive substances	1	.64	1				
Sunstroke	1	.64	1				
Poisoning by wood alcohol	1	.64			1		
Traumatic hematuria	1	.64	1				
Total	156	100.00	94	41	21	1	15
Grand total	1,464		578	[a]642	244	4	247

[a] Of the 642 men discharged for disability contracted before enlistment, 256 were recruits not yet assigned to regiments.

The following table, referred to on page 28 of this report, shows in detail the surgical operations reported by medical officers as having been performed by them on American troops during the calendar year 1905:

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Eye.										
Enucleation	Punctured wound of eye	[a]2	2				2				
Do	Gonorrheal ophthalmia	2	2				2				
Do	Traumatic ophthalmia	1	1				1				
Do	Anterior staphyloma, gonorrheal.	1	1				1				
Excision of prolapsed portion.	Laceration of cornea, with prolapse of iris.	1	1							1	
Extraction with iridectomy 1; discission, 1; needling, 1.	Cataract	3	3					1		2	
Tenotomy internal rectus, 3; shortening external rectus, 2.	Convergent strabismus	5	5					1		4	
Excision, 29; McReynolds', 1.	Pterygium	30	28	2						30	
Incision and dilatation	Stricture of canaliculus and duct.	4	4							4	
Incision and curettage	Lachrimal abscess	1	1				1				
Extraction	Foreign body embedded in cornea.	8	8							8	

[a] One received in action.

Operation.	Disease or injury.	Number of cases.	Result. Successful.	Result. Partially successful.	Result. Failure.	Result. Died.	Anesthetic. Chloroform.	Anesthetic. Ether.	Anesthetic. Chloroform and ether.	Anesthetic. Local.	Anesthetic. None.
	Ear.										
Schwartz's operation, 2; Deuch's operation, 1; opening of cells and curettage, 4.	Mastoiditis	7	6	1			2	4	1		
Curettage and cauterization, 10; paracentesis, 3.	Otitis media	13	12	1				3		10	
Removal by snare, 1; by curete, 3; by forceps, 1; by chromic acid, 1.	Polypus external auditory canal	6	4	2						5	1
Incision	Cicatricial stricture external auditory meatus.	1		1							1
Excision	Mucous cyst external auditory meatus.	1	1								1
	Nose.										
Opening of sinus	Inflammation of frontal sinus.	1		1			1				
Opening of antrum	Inflammation antrum of Highmore.	1	1				1				
Excision	Lupus, apex of nose	1	1				1				
Paraffin method	Saddle-nose deformity	4	4							4	
Refracture of septum, splints.	Deformity from old fracture	1	1					1			
Asch's operation, 2; White's operation, 2; resection triangular cartilage, 2; resection middle turbinate, 1.	Deflected septum	7	7					4		3	
Excision with saw	Enchondrosis and exostosis of septum.	22	20	2						18	4
Excision with snare, 2; excision with saw, 3.	Nasal spur	5	5				1			4	
Electro-cautery, 41; cold snare, 11; forceps, 3.	Hypertrophy of turbinates	55	49	6						44	11
Cauterization of turbinates, 13; excision of turbinates, 1.	Hypertrophic rhinitis	14	13	1						10	4
Removal of sequestrum	Necrosis inferior turbinate	1	1							1	
Excision with snare	Polypus	7	6	1						7	
Curettage	Post-nasal adenoids	1	1					1			
	Mouth and pharynx.										
Excision	Epithelioma of lip	1	1				1				
Do	Ranula	1	1					1			
Do	Papilloma of tongue	1	1							1	
Plastic, for closure	Orinasal fistula	1			1			1			
Tonsillotomy	Hypertrophy of tonsil, 49; follicular tonsillitis, 19.	68	67	1			5	1		44	18
Excision	Adenoids, pharyngeal vault	34	33	1				2		26	6
	Neck and thorax.										
Suturing	Incised wound of throat, opening larynx.	1	1				1				
Incision and drainage	Contusion of neck	1				[a]1	1				
Incision and curettage	Fistula of neck	1		1				1			
Incision	Ankylosis of larynx	1	1							1	
Thyroidectomy, partial 1, incision and curettage, 1.	Goiter	2	2							2	
Suturing and drainage	Dagger wound of thorax	2	2				2				
Resection of rib 1, paracentesis 6.	Pleurisy	7	6			1		1		3	3
Resection of rib 3, thoracotomy 3.	Empyema	6	4		1	1	3	1		2	
Resection of rib	Pyopneumo-thorax	1				1		1			
Aspiration	Sero-thorax	1	1							1	

[a] Death due to septicemia.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Abdomen.										
Laparotomy	Contusion of abdomen, from explosion of shell.	1				1		1			
Do	Contusion of abdomen, with rupture of duodenum.	1				[a]1		1			
Do	Penetrating gunshot wound	3	2			1	2	1			
Do	Perforation of intestine	1				[b]1		1			
Do	Punctured knife wound	1	1				1				
Ex-section 18-inches ileum and head of cecum.	Traumatic peritonitis	1				1		1			
Exploratory incision	Hematoma	1				1		1			
Incision and evacuation of splenic hematoma.	Rupture, capsule of spleen	1	1					1			
Gastro-enterostomy	Dilatation of stomach	1	1				1				
Gastrolysis	Adhesions of stomach	1	1					1			
Exploratory gastrotomy	Suspected gastric ulcer	1			1		1				
Incision, adhesions released.	Omental and intestinal adhesions.	1	1					1			
Exploratory incision	Intestinal obstruction from adhesive bands. (Mistaken diagnosis.)	1			1			1			
Do	Suspected abdominal abscess.	1			1		1				
Incision and drainage	Abdominal abscess	1	1				1				
Exploratory laparotomy, and cholecystotomy.	Pus infection, probably abdominal.	1				[c]1	1				
Laparotomy	Pancreatitis and cholelithiasis.	1		1					1		
Resection of rib 3, Manson's 1, incision and drainage 7, exploratory incision 1, aspiration 3.	Abscess of liver	15	8		1	6	5	9			1
Cholelithotomy	Gallstones	1	1				1				
Cholecystotomy	Cholecystitis	2	2				1		1		
Do	Suspected gallstone obstruction.	2		2				1	1		
Appendectomy 114, incision and drainage 6.	Appendicitis	120	111			9	35	74	10	1	
Incision and drainage	Abscess site of appendiceal scar.	1	1					1			
Appendicostomy 9, Weir's 1.	Dysentery	10	7	1	2		5	4	1		
Appendicostomy	Mucous colitis	1	1					1			
Laparotomy	Carcinoma of ileum	1			1			1			
Do	Carcinoma of cecum	1				1		1			
Resection 5-inch each, ileum and colon. Anastomosis by McGrew ligature.	Artificial anus, following resection of cecum.	1				1	1				
Ilio-colostomy	Artificial anus	1	1				1				
Excision of fistula and enterorrhaphy.	Fecal fistula	1	1					1			
Paracentesis	Tubercular peritonitis	1	1								1
Paracentesis 5, aspiration 4.	Ascites	9	9							9	
Laparotomy	Undescended testicle	1			1			1			
Bassini's 155, Bassini's modified 4, Bloodgood and Bassini's 1, Ferguson's 1, operation not stated 6.	Inguinal hernia	[d]167	165	1	1		35	116	11	4	1
Mayo's transverse 1, Mayo's modified 2, operation not stated 8.	Ventral hernia	[e]11	11				1	7	3		
Purse string suture	Femoral hernia	1	1						1		
	Anus and rectum.										
Excision 10, curettage 5, excision and curettage 21, excision and cauterization 2.	Fistula in ano	38	37	1			9	18		8	3

[a] Death due to prolonged shock from injury caused by kick of horse.
[b] Due to typhoid fever.
[c] Autopsy revealed abscess head of pancreas.
[d] Three were recurrent, four were complicated with undescended testicle.
[e] Five appeared in appendiceal scars.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Anus and rectum—Continued.										
Cauterization 3, divulsion 2, incision and curettage 1, Kelsey's 1, dissection 1, suture 1.	Fissure of anus	9	9				3	2		3	1
Excision of redundant membrane.	Prolapse of anus	1	1					1			
Ligation 113, excision 50, clamp and cautery 53, cautery 5, Whitehead's 5, evacuation of clots 9, injection of boiling water 1, operation not stated 2.	Internal hemorrhoids 59, external hemorrhoids 117, mixed hemorrhoids 29, kind not stated 33.	238	236	2			57	104	5	68	4
Abdominal aspiration	Carcinoma of rectum, with secondary involvement.	1				1				1	
Incision	Stricture of rectum	1	1					1			
Duret's modified 1, cauterization 5.	Prolapse of rectum	6	3	3				1		5	
Curettage 1, divulsion and cauterization 2.	Ulcer of rectum	3	2	1				1	1	1	
Incision and curettage	Ischio-rectal fistula	1	1				1				
Incision and curettage 3, incision and drainage 24.	Ischio-rectal abscess	27	26	1			12	4		5	6
Incision and drainage	Peri-rectal abscess	5	5							2	3
	Genito-urinary system.										
Castration	Tuberculosis of testicle 6, epithelioma of testicle 1, tumor of testicle 1, contusion of testicle 1, undescended testicle 3, chronic orchitis 1.	[a] 13	13				5	3	3	2	
High excision 126, low excision 19, ligation 2, Bennett's high 1, Bennett's low 1, excision site not stated, 41.	Varicocele	[b] 190	189			[c] 1	54	93	5	37	1
Excision of sac 14, inversion of sac 1, Von Bergman's 3, Volkman's 1, tapping 16.	Hydrocele	[d] 35	34		1		8	13		7	7
Incision and drainage	Hematocele	3	3				1	1		1	
Incision	Hypertrophic orchitis	3	3				1	2			
Excision of globus minor	Epididymitis	1	1							1	
Nephrectomy	Cystic degeneration	1	1				1				
Do	Hydronephrosis	1				1		1			
Nephrolithotomy	Renal calculus	1	1					1			
Nephrotomy	Suppurative pyelitis	1	1						1		
Oblique incision	Suspected post-renal abscess	1			1		1				
Supra-pubic cystotomy	Vesical calculus	1	1				1				
Do	Extravasation of urine	1	1					1			
Supra-pubic aspiration	Retention of urine	1	1								1
Perineal urethrotomy	Cystitis	1		1			1				
Exterior urethrotomy 1, interior urethrotomy 10, rapid dilatation 10.	Urethral stricture	21	20	1			3	4		10	4
Plastic for closure	Urethral fistula	1	1					1			
Excision of tract 1, incision and curettage 1.	Peri-urethral fistula	2	2					1		1	
Incision	Peri-urethral abscess	3	3					2		1	
Plastic	Peno-scrotal hypospadias	1		1			1				
Meatotomy	Chancroid of meatus	2	2							2	
Do	Constricted meatus	2	2							2	
Circumcision	Phimosis 225, paraphimosis 4, redundant prepuce 77, elongated prepuce 19, adherent prepuce 2, balanitis 7, venereal warts, 1.	335	334	1			34	54	5	239	3

[a] One double castration for tuberculosis.

[b] One bilateral operation.

[c] Death was due to gangrene of groin and scrotum believed to have been caused by carbolic acid poisoning.

[d] One bilateral operation.

Operation.	Disease or injury.	Number of cases.	Result. Successful.	Result. Partially successful.	Result. Failure.	Result. Died.	Anesthetic. Chloroform.	Anesthetic. Ether.	Anesthetic. Chloroform and ether.	Anesthetic. Local.	Anesthetic. None.
	Vascular system.										
Ligation	Aneurism, popliteal artery	1	1	....	...	...	1	....	...	.....	...
Ligation, proximal and distal.	Aneurism, radial artery	1	1	....	...	...	....	....	1	.....	...
Antyllus'	Aneurism, anterior tibial artery.	1	1	....	...	...	1	....	...	.....	...
Do	Aneurism, artery not stated	1	1	....	...	...	1	....	...	.....	...
Ligation	Severed external carotid artery.	1	1	....	...	...	1	....	...	.....	...
Do	Severed brachial artery	1	1	....	...	...	1	....	...	.....	...
Do	Severed post-tibial artery	1	1	....	...	...	1	....	...	.....	...
Ligation, proximal	Aneurism facial vein	1	.....	....	1	...	....	1	...	.....	...
Ligation	Severed jugular, subclavian, and innominate veins.	1	.....	....	...	*a* 1	....	....	...	.....	1
Excision 21, multiple ligation 4, Schede's 2.	Varicose veins	27	27	....	...	...	6	7	4	10	...
	Nervous system.										
Trephining	Hemicrania	1	1	....	...	...	....	1	...	.....	...
Excision great occipital nerve and branches.	Chronic neuralgia	1	1	....	...	...	....	1	...	.....	...
Neurectomy	Neuritis supra-orbital nerve	1	1	....	...	...	1	....	...	.....	...
Suturing of nerve	Gunshot wound, severing ulnar nerve.	1	1	....	...	...	1	....	...	.....	...
Neuroplasty of median nerve.	Anesthesia of thumb, index, middle, and ring fingers.	1	1	....	...	...	....	1	...	.....	...
Nerve freed from cicatricial tissue.	Old gunshot wound, involving great sciatic nerve.	1	1	....	...	...	....	1	...	.....	...
Application of actual cautery.	Chronic sciatica	1	.....	....	1	...	1	....	...	.....	...
Exploratory incision	Neuralgia crural nerve	1	1	....	...	...	....	1	...	.....	...
	Skin and cellular tissue.										
Excision	Nevus	1	1	....	...	...	1	....	...	.....	...
Do	Painful scar	1	.....	....	1	...	1	....	...	.....	...
Lengthening and ligation	Contracted scar	1	1	....	...	...	1	....	...	.....	...
Excision	Scar	3	3	....	...	...	1	....	...	2	...
Do	Painful callus	2	2	....	...	...	....	....	...	2	...
Do	Hypertrophy of mammary gland.	1	1	....	...	...	1	....	...	.....	...
Incision and drainage	Suppurating cellulitis	18	18	....	...	...	4	6	...	3	5
Incision and curettage	Sinus	5	5	....	...	...	3	2	...	.....	...
Do	Fistula	1	.....	1	...	...	....	....	...	1	...
Curettage	Ulcer	1	1	....	...	...	1	....	...	.....	...
Incision and drainage	Carbuncle	12	12	....	...	...	....	....	...	9	3
Incision, thru and thru drainage.	Acute infection finger	1	1	....	...	...	....	1	...	.....	...
Incision and drainage 171, incision and curettage 12.	Abscess	183	181	1	1	...	14	7	...	104	58
	Lymphatic system.										
Excision	Filarial lymphatic varix	1	1	....	...	...	....	1	...	.....	...
Incision and drainage	Lymphadenitis	1	1	....	...	...	....	....	...	1	...
Excision 11, partial excision 1, incision and curettage 4.	Cervical adenitis, tubercular 7, cervical adenitis, nature not stated, 9.	16	15	1	...	...	7	3	3	3	...
Incision and curettage 1, excision 2.	Axillary adenitis, nature not stated.	3	3	....	...	...	1	....	...	2	...
Excision 278, incision and curettage 406, Ott's 2.	Inguinial adenitis, venereal 368, nonvenereal 88, traumatic 18, nature not stated 212.	686	685	1	...	...	220	107	12	241	106
Incision and curettage	Femoral adenitis	2	2	....	...	...	1	....	...	1	...
	Muscles, tendons, fasciæ, ligaments, and bursæ.										
Suturing	Severed deltoid muscle	1	1	....	...	...	....	....	1	.....	...
Layer suturing	Severed pectoralis major muscle.	1	1	....	...	...	....	....	...	.....	1

a Death due to uncontrollable hemorrhage before completion of operation.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Muscles, tendons, fasciæ, ligaments, and bursæ—Cont'd.										
Adhesions broken up and tendons sutured.	Old incised wound, wrist	1			1			1			
Tendoplasty	Severed tendons, hand	1	1				1				
Tenorrhaphy	Severed tendons, finger	2	1		1		2				
Tendoplasty	Shortening of leg following fracture.	1	1						1		
Excision	Redundant membrane covering tendon.	1	1				1				
Excision of "rice body" 1, incision and drainage 1.	Tendosynovitis	2	2					2			
Excision 9, incision and drainage 1.	Bursitis	10	10				3	3		3	1
Excision	Ganglion	6	6				2	1		3	
Excision 5, resection of joint 2, Weir's 1.	Bunion	8	7	1			3	4		1	
	Bones.										
Trephining 4, suture of meninges 1, ligation of vessels 1, removal fragments of bone 3, removal depressed fragments of bone 2.	Fracture of skull	11	8			3	4	6			1
Exploratory incision	Suspected fracture of skull	1	1				1				
Wiring	Fracture lower jaw	5	5				5				
Sequestrotomy 1, curettage 1.	Necrosis lower jaw	2	2				1		1		
Laminectomy	Fracture cervical vertebra	1				1	1				
Thru and thru drainage established.	Incised wound of arm, with fracture of humerus.	[a] 1				1	1				
Ends of bone freshened and wired.	Ununited fracture of humerus.	1	1					1			
Removal of dead bone	Necrosis of humerus	1	1				1				
Wiring	Fracture of ulna and radius	1	1					1			
Ends of bone freshened and wired.	Ununited fracture ulna and radius.	1	1						1		
Curettage of dead bone and sinus.	Necrosis of radius	4	2	2				4			
Incision and removal of hematoma.	Old fracture of radius	1	1					1			
Excision of scaphoid	Fracture of carpus	1	1					1			
Incision over second, third, and fourth metacarpals, coaptation of fragments.	Fracture of metacarpus	1	1				1				
Removal of dead bone	Necrosis of metacarpus	1	1				1				
Resection, distal end	Fracture first phalanx finger	1			1		1				
Wiring	Fracture of clavicle	1			1			1			
Incision and curettage	Necrosis of sternum	1	1					1			
Removal fragment of bone	Fracture of pelvis	1	1				1				
Wiring	Ununited fracture femur	1			1			1			
Osteotomy	Exostosis shaft of femur	1	1				1				
Incision and curettage	Necrosis of femur	1	1							1	
Ends of bones freshened and wired.	Old fracture both bones leg	1	1					1			
Osteoclasis, open method	Vicious union fracture both bones leg.	1	1						1		
Partial resection	Compound comminuted fracture tibia.	1	1					1			
Suturing of bone	do	1		1				1			
Do	Ununited fracture tibia	1	1					1			
Curettage of dead bone and opening of canal.	Osteomyelitis and necrosis tibia.	1			1			1			
Osteotomy 1, incision and curettage 1.	Osteitis of tibia	2	2				1	1			
Incision and curettage	Necrosis of tibia	1	1					1			
Incision	Periostitis of tibia	1	1								1
Incision and curettage	Caries of fibula	1	1					1			
Excision of astragalus	Crushing of foot	1		1			1				

[a] Received in action; died of hypostatic congestion of lungs 26 days later.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Bones—Continued.										
Osteotomy	Exostosis tarsal scaphoid	1			1		1				
Bone trimmed and wired	Fracture metatarsus	2	2					2			
Resection	Osteitis of metatarsus	1	1					1			
Osteotomy	Exostosis of metatarsus	2	1	1			1	1			
	Joints.										
Resection portion of capsular ligament.	Recurrent dislocation shoulder joint.	1	1						1		
Division of fascia and manipulation.	Contraction bicipital fascia and ankylosis elbow joint.	1			1			1			
Resection of joint	Ankylosis, metacarpo-phalangeal.	1			1			1			
Do	Ankylosis finger joint	1	1					1			
Do	Compound dislocation, finger	1	1					1			
Reduction, suturing	Compound dislocation, thumb	1	1				1				
Thru and thru drainage established.	Gunshot wound knee	1				1	1				
Tenotomy	Arthritis kneejoint, with contraction hamstring tendons.	1			1		1				
Cartilage removed 4, cartilage anchored by suture 1.	Floating cartilage kneejoint	5	5				4	1			
Paracentesis	Synovitis, kneejoint	2	2				1	1			
Excision portion of metatarsal.	Old dislocation, tarso-metatarsal.	1	1				1				
Resection of joint	Ankylosis, tarso-metatarsal	1	1				1				
Resection of joint 5, Keller's 2.	Hallux valgus	7	6	1			1	5	1		
Resection of joint	Hammer toe	1	1							1	
	Amputations.										
Amputation shoulder joint.	Traumatic gangrene arm	1				1	1				
Amputation arm, surgical neck.	Compound comminuted fracture.	1	1				1				
Amputation arm	Suppurative cellulitis	1			1			1			
Disarticulation elbow joint.	Gunshot wound forearm	1	1					1			
Amputation forearm	do	1	1				1				
Do	Laceration of forearm from explosion of cannon.	1				*a*1	1				
Amputation finger 57, thumb 9.	Disease 13, freezing 2, gunshot wound 14, other injuries 28, polydactylism thumb 1, cause not stated 8.	66	65		1		33	20		13	
Amputation hip joint	Osteomyelitis femur	1	1				1				
Amputation junction upper and middle third.	Compound comminuted fracture femur, gunshot.	1				1	1				
Do	Necrosis of femur	1	1					1			
Amputation middle third	Gangrene following gunshot wound.	1	1						1		
Amputation lower third	Gangrene following fracture both bones leg.	1	1				1				
Do	Necrosis of femur involving kneejoint.	1	1					1			
Do	Gunshot wound, involving knee and both bones, leg.	1	1				1				
Amputation osteoplastic, transcondyloid, Gritti-Stokes.	Gunshot wound thigh	1	1						1		
Amputation left leg, upper third; right leg, lower third.	Crushing of both legs	1	1				1				
Reamputation of leg, upper third.	Necrosis of stump	1	1				1				
Amputation leg, lower third.	Necrosis bones of foot and lower end of tibia.	1	1					1			
Do	Tuberculosis tarsal bones	1	1						1		
Amputation, site not stated.	Necrosis of tibia	1	1						1		
Amputation foot	Crushing	1	1					1			
Amputation, Chopart's	Epithelioma of foot	2	2				1	1			

a Death due to shock from burns.

Operation.	Disease or injury.	Number of cases.	Result. Successful.	Result. Partially successful.	Result. Failure.	Result. Died.	Anesthetic. Chloroform.	Anesthetic. Ether.	Anesthetic. Chloroform and ether.	Anesthetic. Local.	Anesthetic. None.
	Amputations—Continued.										
Amputation toe	Disease 3, deformity 16, freezing 4, gunshot wound 4, other injury 1.	28	27	1	...	...	12	7	2	7	...
	Foreign bodies.										
Incision and extraction	Imbedded bullet	40	39	...	[a] 1	...	9	7	...	24	...
Do	Imbedded needle	2	2	...	...	...	2	...	...	...	...
	Malignant tumors.										
Excision	Epithelioma	2	2	...	...	...	1	...	...	1	...
Do	Sarcoma	1	1	...	...	...	...	1	...	...	...
	Benign tumors.										
Excision 89, ligation 1	Lipoma 10, fibroma 5, adenofibroma 2, cystic 4, angioma 1, dermoid cyst 2, myxoma 1, sebaceous cyst 59, papilloma 1, fatty tumor 1, tumor of parotid gland 1, tumor nature undetermined 3.	90	89	...	...	[b] 1	16	12	...	58	4
	Plastic surgery.										
Plastic	Adduction of thumb	1	1	...	...	...	...	1	...	...	...
	Total	3,004	2,882	50	30	42	713	806	83	1,136	266

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[a] The absence of bullet was demonstrated later with X ray.
[b] The death was due to chloroform asphyxia. Ligation was done on a fibroma, femoral region.

NOTE—Spinal analgesia was induced with eucain beta, and tropacocain in 60 cases.

STATISTICAL TABLES.

The following tables show in detail the statistical data upon which the statements in this report are based:

I. Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1905, compared with corresponding data for the year 1904, by countries; absolute numbers.

II. Same as Table I; proportionate numbers.

III. Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1905, compared with corresponding data for the year 1904, by races; absolute numbers.

IV. Same as Table III; proportionate numbers.

V. Admissions to sick report, discharges, deaths, and noneffectiveness in the Army, with ratios per 1,000 of mean strength, in which all available data for the period 1898–1903 are placed in comparison with the year 1905.

V(*a*). Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the Army—officers, total enlisted, and white enlisted, for the year 1905.

VI. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905, United States continental, excluding Alaska.

VII. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905—Alaska, Philippine Islands, and Hawaii.

VII(*a*). Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905—China, and army transports.

VIII. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905—Porto Rican and Filipino troops.

TABLE I.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1905, compared with corresponding data for the year 1904, by countries—Absolute numbers.*

American troops (enlisted).		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
United States	1905..	42,834	53,555	42,739	10,816	1,451	1,296	155	263	152	111	738,810	2,024.14
	1904..	43,940	57,378	46,071	11,307	1,364	1,220	144	283	173	110	744,819	2,035.02
Alaska	1905..	854	807	587	220	10	9	1	8	5	3	9,600	26.30
	1901..	730	612	454	158	10	9	1	5	4	1	7,546	20.62
Porto Rico and Cuba	1905..	....	....	....	....	....	....	....	....	....	....	....	....
	1904..	124	110	86	24	1	1	....	1	1	....	1,700	4.64
Philippine Islands	1905..	11,057	17,688	15,334	2,354	1	1	....	90	43	47	239,257	655.50
	1904..	11,996	20,246	17,672	2,574	2	2	....	105	46	59	289,217	790.21
Hawaii	1905..	176	176	134	42	1	1	....	....	....	....	2,552	7.00
	1904..	204	294	230	64	....	....	....	2	2	....	3,275	8.95
China	1905..	110	175	154	21	1	1	....	1	1	....	2,247	6.16
	1904..	142	198	175	23	....	....	....	1	....	1	1,935	5.29
Army transports	1905..	1,870	1,341	1,277	64	....	....	....	6	5	1	23,764	65.11
	1904..	1,604	748	716	32	....	....	....	9	7	2	22,172	60.58
Total	**1905.**	**56,901**	**73,742**	**60,225**	**13,517**	**1,464**	**1,308**	**156**	**368**	**206**	**162**	**1,016,230**	**2,784.19**
	1904..	58,740	79,586	65,401	14,182	1,377	1,232	145	406	233	173	1,070,664	2,925.31
Regular Army, American troops	1898 to 1903	66,691	761,609	677,256	81,353	9,244	7,927	1,317	6,402	4,649	1,753	....	....

TABLE II.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1905, compared with corresponding data for the year 1904, by countries—Proportionate numbers.*

American troops (enlisted).		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Constantly non-effective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
United States	1905	42,834	1,250.29	997.78	252.51	33.88	30.26	3.62	6.14	3.55	2.59	47.26	17.25	13.80
	1904	43,940	1,305.83	1,048.50	257.33	31.04	27.77	3.28	6.44	3.94	2.50	46.32	17.00	13.00
Alaska	1905	854	941.97	687.35	257.61	11.71	10.54	1.17	9.37	5.85	3.51	30.80	11.24	11.90
	1904	730	838.36	621.92	216.44	13.70	12.33	1.37	6.85	5.48	1.37	28.24	10.34	12.33
Porto Rico and Cuba	1905	....	....	....	....	....	....	....	....	....	....	....	....	....
	1904	124	887.10	693.55	193.55	8.06	8.06	....	8.06	8.06	....	37.46	13.71	15.45
Philippine Islands	1905	11,057	1,599.72	1,386.81	212.90	.09	.09	....	8.14	3.89	4.25	59.28	21.61	13.53
	1904	11,996	1,687.73	1,473.16	214.57	.17	.17	....	8.75	3.83	4.92	65.88	24.19	14.33
Hawaii	1905	176	1,000.00	761.36	238.64	5.68	5.68	....	....	....	....	39.73	14.50	14.50
	1904	204	1,141.17	1,127.45	313.72	....	....	....	9.80	9.80	....	43.86	16.05	11.14
China	1905	110	1,590.91	1,400.00	190.91	9.09	9.09	....	9.09	9.09	....	55.97	20.43	12.84
	1904	142	1,394.36	1,232.39	161.97	....	....	....	7.04	....	7.04	37.23	13.03	9.77
Army transports	1905	1,870	717.11	682.89	34.22	....	....	....	3.21	2.67	.53	34.82	12.71	17.72
	1:04	1,604	466.33	446.38	19.95	....	....	....	5.61	4.36	1.25	37.77	13.82	29.64
Total	**1905**	**56,901**	**1,295.97**	**1,058.42**	**237.55**	**25.00**	**22.34**	**2.66**	**6.28**	**3.52**	**2.77**	**48.93**	**17.86**	**13.78**
	1904	58,740	1,354.89	1,113.45	241.44	22.90	20.49	2.41	6.75	3.87	2.88	49.80	18.23	13.45
Regular Army, American troops	1898 to 1903	66,691	1,903.31	1,692.51	210.80	23.10	19.81	3.29	16.00	11.62	4.38	....	....	....

TABLE III.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1905, compared with corresponding data for the year 1904, by races—Absolute numbers.*

Enlisted men.		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
White troops	1905..	53,573	70,244	57,633	12,611	1,359	1,213	146	330	182	148	973,258	2,666.46
	1904..	55,619	75,915	62,700	13,215	1,319	1,176	143	381	212	169	1,029,983	2,814.16
Colored troops	1905..	3,328	3,498	2,592	906	105	95	10	38	24	14	42,972	117.73
	1904..	3,121	3,671	2,704	967	58	56	2	25	21	4	40,681	111.15
Porto Rican troops	1905..	550	773	713	60	12	11	1	3	2	1	11,612	31.81
	1904..	540	767	677	90	7	4	3	2	2	....	12,222	33.39
Filipino troops	1905..	4,732	5,905	5,382	523	21	21	....	51	32	19	58,212	159.48
	1904..	4,610	5,242	4,717	525	27	26	1	103	35	68	54,074	147.74

TABLE IV.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1905, compared with corresponding data for the year 1904, by races—Proportionate numbers.*

Enlisted men.		Mean strength.	Admitted.			Discharged, surgeon's certificate of disability.			Died.			Constantly noneffective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
White troops	1905..	53,573	1,311.18	1,075.79	235.40	24.61	21.96	2.64	5.98	3.30	2.68	49.77	18.17	13.86
	1904..	55,619	1,364.92	1,127.32	237.60	23.17	20.66	2.51	6.69	3.72	2.97	50.60	18.52	13.57
Colored troops	1905..	3,328	1,051.08	778.85	272.24	31.50	28.50	3.00	11.40	7.20	4.20	35.38	12.91	12.28
	1904..	3,121	1,176.22	866.39	309.83	18.07	17.45	.62	7.79	6.54	1.25	35.62	13.03	11.08
Porto Rican troops	1905..	550	1,405.45	1,296.36	109.09	21.82	20.00	1.82	5.45	3.64	1.82	57.84	21.11	15.02
	1904..	540	1,420.37	1,253.70	166.67	12.96	7.41	5.55	3.70	3.70	....	61.84	22.63	15.93
Filipino troops	1905..	4,732	1,247.89	1,137.36	110.52	4.24	4.24	....	10.71	6.47	4.24	33.70	12.30	9.86
	1904..	4,610	1,137.09	1,023.21	113.88	5.86	5.64	.22	22.34	7.59	14.75	32.05	11.73	10.32

TABLE V.—*Admissions to sick report, discharges, deaths, and noneffectiveness in the Army, with ratios per 1,000 of mean strength, in which all available data for the period 1898–1903 are placed in comparison with the year 1905.*

	United States Army, years 1898–1903.								American troops—Army.							
Mean strength	400,149 (mean annual, 66,691).								S. G. O. 56,901—M. S. O. 58,556.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	7,597	18.99	40	0.10	863	2.16			193	3.39			17	0.29	38.47	0.68
Malarial fevers:																
Intermittent	128,513	321.16	4	.01	9	.02			4,603	80.89			1	.02	86.84	1.52
Remittent or continued	33,168	82.88	5	.01	101	.25			341	5.99			1	.02	10.67	.19
Pernicious	593	1.48	1	.002	218	.54			17	.30			5	.09	.51	.01
Malarial cachexia	6,506	16.26	166	.41	44	.11			93	1.63	3	0.05	1	.02	7.34	.13
Smallpox	480	1.20			104	.26			11	.19					.98	.02
Measles	5,282	13.20	8	.02	81	.20			297	5.22			1	.02	14.93	.26
Eruptive fevers, others	523	1.30			6	.01			154	2.70					5.26	.09
Diphtheria	151	.38			9	.02			34	.60					2.08	.04
Influenza	11,116	27.78			4	.01			1,696	29.80			1	.02	26.81	.47
Asiatic cholera	510	1.27			306	.76			9	.16			2	.03	.41	.01
Cholera nostras	924	2.31							20	.35					.14	.002
Dysentery, acute and chronic	24,168	60.40	407	1.01	906	2.27			964	16.93	12	.20	12	.20	101.58	1.79
Yellow fever	1,025	2.56			156	.39										
Leprosy	1	.002													1.00	.02
Beriberi	50	.12	6	.01	6	.01			5	.09			2	.03	.76	.01
Erysipelas	351	.88			7	.02			46	.81					2.30	.04
Dengue	12,418	31.03			1	.002			472	8.29					9.07	.16
Mumps	4,448	11.12							675	11.86					28.56	.50
Purulent infection and septicemia	81	.20	2	.005	47	.12			14	.25			5	.09	1.80	.03
Tuberculosis, pulmonary	1,743	4.36	861	2.15	281	.70			240	4.22	148	2.53	33	.56	152.22	2.68
Syphilis and its results	7,678	19.19	861	2.16	16	.04			1,954	34.34	142	2.43	1	.02	179.04	3.15
Chancroid and its results	14,163	35.39	21	.05					1,894	33.29	2	.03			116.08	2.04
Gonorrhea and its results	37,654	94.10	317	.79	3	.01			7,471	131.30	55	.95	1	.02	409.98	7.21
Cancer and other malignant growths	81	.20	18	.04	19	.04			17	.30	2	.03	5	.09	3.59	.06
Rheumatism, acute, articular	2,527	6.31	22	.05	7	.02			570	10.02	1	.02			30.47	.54
Rheumatism, subacute and chronic, articular	2,802	7.00	268	.67					373	6.55	36	.61			44.64	.78
Alcoholism and its results	8,621	21.54	45	.11	108	.26			1,687	29.65	7	.12	14	.24	21.04	.37
Insanity	707	1.77	565	1.41	7	.02			92	1.62	78	1.33			13.27	.23
Tetanus	14	.03			11	.03										
Organic diseases of the heart	2,411	6.02	606	1.51	167	.42			221	3.88	107	1.83	5	.09	24.93	.44
Lymphangitis	385	.96	9	.02	1	.002										
Bronchitis, acute and chronic	25,931	64.81	32	.08	4	.01			3,094	54.37	8	.14	1	.02	54.59	.96
Broncho pneumonia, pneumonia (pneumonic fever)	1,495	3.74	13	.03	215	.54			166	2.92			20	.34	15.34	.27
Diarrhea and enteritis	100,431	250.97	124	.30	203	.50			3,835	67.39	7	.12			61.70	1.08

TABLE V.—*Admissions to sick report, discharges, deaths, and noneffectiveness in the Army, with ratios per 1,000 of mean strength, etc.*—Continued.

	United States Army, years 1898–1903.								American troops—Army.							
Mean strength	400,149 (mean annual, 66,691).								S. G. O. 56,901—M. S. O. 58,556.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Inguinal and other herniæ	2,038	5.09	419	1.05	2	0.005	......	......	325	5.71	68	1.16	......	......	38.93	0.68
Appendicitis	1,166	2.91	45	.11	65	.16	......	......	230	4.04	4	.07	12	0.20	20.44	.36
External causes, special.																
Fractures, exclusive of gunshot	3,316	8.29	203	.51	82	.20	......	......	629	11.05	30	.51	11	.18	77.90	1.37
Dislocations	1,225	3.06	38	.10	5	.01	......	......	212	3.73	7	.12	......	......	13.43	.24
Wounds, gunshot	3,941	9.85	681	1.70	910	2.27	......	......	210	3.69	40	.68	55	.94	37.21	.65
Wounds other than gunshot	16,590	41.46	76	.18	155	.39	......	......	3,049	53.57	19	.32	17	.29	78.66	1.38
Sunstroke	979	2.45	16	.04	23	.06	......	......	10	.18	1	.02	......	......	.17	.003
Drowning	8	.02	......	......	362	.90	......	......	......	......	......	......	37	.63	......	......
Poisoning, acute	1,127	2.81	3	.01	64	.16	......	......	233	4.10	1	.02	21	.36	2.66	.05
Venomous bites, etc	2,443	6.10	5	.01	1	.002	......	......	107	1.89	......	......	......	......	1.83	.03
Diseases and injuries grouped.																
General diseases	329,170	822.59	3,321	8.30	3,371	8.42	......	......	26,461	465.03	440	7.52	124	2.12	1,366.49	24.02
Epidemic diseases	251,899	629.49	638	1.59	2,821	7.05	......	......	11,876	208.71	15	.26	50	.85	372.06	6.64
Other general diseases	77,271	193.10	2,683	6.71	550	1.37	......	......	14,585	256.32	425	7.26	74	1.26	988.95	17.38
Diseases of the nervous system and organs of special sense	23,625	59.03	2,004	5.01	192	.48	......	......	2,956	51.95	356	6.09	11	.19	175.43	3.09
Of the nervous system	12,491	31.21	1,267	3.17	188	.47	......	......	1,235	21.70	169	2.89	11	.19	82.25	1.45
Of the eye and its adnexa	6,092	15.22	372	.93	1	.002	......	......	1,185	20.83	134	2.29	......	......	66.99	1.18
Of the ear and its adnexa	5,042	12.60	365	.91	3	.01	......	......	536	9.42	53	.91	......	......	26.18	.46
Diseases of the circulatory system	8,735	21.83	784	1.96	191	.48	......	......	1,792	31.49	154	2.63	11	.19	106.57	1.87
Diseases of the respiratory system	40,097	100.21	219	.55	255	.64	......	......	5,186	91.14	37	.63	21	.36	113.11	1.99
Diseases of the digestive system	181,654	453.96	820	2.05	465	1.16	......	......	13,717	241.07	95	1.62	27	.46	294.30	5.17
Diseases of the genito-urinary system	6,334	15.83	211	.53	149	.37	......	......	926	16.27	40	.68	7	.12	47.96	.84
Diseases of the skin and cellular tissue	54,553	136.33	56	.14	7	.02	......	......	5,479	96.29	31	.53	1	.02	138.98	2.44
Diseases of the organs of locomotion	22,998	57.47	508	1.27	2	.005	......	......	2,144	37.68	80	1.37	......	......	75.85	1.33
Malformations, etc	......	......	......	......	......	......	......	......	170	2.99	68	1.16	......	......	15.89	.28
Diseases, results of old age	......	......	......	......	......	......	......	......	1	.02	1	.02	......	......	.37	.01
Ill-defined diseases	10,090	25.21	4	.01	17	.04	......	......	1,393	24.48	6	.10	4	.07	33.13	.58
Total for disease	677,256	1,692.51	7,927	19.81	4,649	11.62	......	......	60,225	1,058.42	1,308	22.34	206	3.52	2,368.06	41.62
External causes	84,353	210.80	1,317	3.29	1,753	4.38	......	......	13,517	237.55	156	2.66	162	2.77	416.13	7.31
Total for disease and external causes	761,609	1,903.31	9,244	23.10	6,402	16.00	......	......	73,742	1,295.97	1,464	25.00	368	6.28	2,784.19	48.93

TABLE V (*a*).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the Army—Officers, total enlisted, and white enlisted, for the year 1905.*

	Officers, United States Army.						American troops—Army.								American troops—White.							
Mean strength	S. G. O. 3,505—M. S. O. 3,739.						S. G. O. 56,901—M. S. O. 58,556.								S. G. O. 53,573—M. S. O. 55,223.							
	Admissions.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	6	1.71	1	0.27	1.81	0.52	193	3.39			17	0.29	38.47	0.68	190	3.55			16	0.29	37.82	0.71
Fevers, undetermined	19	5.42			.32	.09	696	12.23					11.18	.20	674	12.58					10.88	.20
Malarial fevers:																						
Nonmalignant infection—																						
Intermittent	12	3.42			.16	.05	388	6.82					7.05	.12	382	7.13					6.93	.13
Remittent or continued							1	.02					.02	.0003	1	.02					.02	.0004
Malignant æstivo-autumnal infection—																						
Intermittent	18	5.14			.53	.15	546	9.59			1	.02	14.76	.24	545	10.17			1	.02	13.74	.26
Remittent or continued	5	1.43			.31	.09	206	3.62			1	.02	6.78	.12	206	3.85			1	.02	6.78	.13
Pernicious							17	.30			5	.09	.51	.01	17	.32			5	.09	.54	.01
Undetermined mal. infection—																						
Intermittent	118	33.67			2.38	.68	3,669	64.48					66.03	1.16	3,621	67.58					65.78	1.22
Remittent or continued	7	2.00			.32	.09	134	2.35					3.87	.07	134	2.50					3.87	.07
Malarial cachexia	8	2.28			.99	.28	93	1.63	3	0.05	1	.02	7.34	.13	93	1.74	3	0.06	1	.02	7.34	.14
Hemoglobinuric fever							2	.04					.08	.001	2	.04					.08	.002
Small pox							11	.19					.98	.02	6	.11					.59	.01
Measles	2	.57			.12	.04	297	5.22			1	.02	14.93	.26	290	5.41			1	.02	14.57	.27
Eruptive fevers, others	6	1.72			.28	.08	154	2.70					5.26	.09	150	2.80					5.03	.10
Diphtheria	3	.86			.13	.04	34	.60					2.08	.04	33	.62					2.05	.04
Influenza	201	57.35	1	.27	3.29	.91	1,696	29.80			1	.02	26.81	.47	1,619	30.22			1	.02	25.15	.47
Asiatic cholera							9	.16			2	.03	.11	.01	9	.17			2	.04	.11	.01
Cholera nostras	3	.86			.02	.005	20	.35					.14	.002	19	.35					.14	.003
Dysentery—																						
Amebic	43	12.27			6.42	1.83	435	7.64	9	.15	6	.10	69.72	1.23	430	8.03	9	.16	6	.11	69.18	1.29
Bacillary							11	.19					.58	.01	11	.21					.58	.01
Mixed infections and other dysenteries	19	5.42			.50	.14	518	9.10	3	.05	6	.10	31.28	.55	511	9.54	3	.05	6	.11	31.09	.59
Leprosy													1.00	.02							1.00	.02
Beriberi							5	.09			2	.03	.76	.01	5	.09			2	.04	.76	.01
Erysipelas	2	.57			.06	.02	46	.81					2.30	.04	46	.86					2.30	.04
Dengue	29	8.27			.57	.16	472	8.29					9.07	.16	472	8.81					9.07	.17
Mumps	5	1.43			.10	.03	675	11.86					28.56	.50	636	11.87					26.77	.50

TABLE V (*a*).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, etc.*—Continued.

	Officers, United States Army.						American troops—Army.										American troops—White.									
Mean strength	S. G. O. 3,505—M. S. O. 3,739.						S. G. O. 56,901—M. S. O. 58,556.										S. G. O. 53,573—M. S. O. 55,223.									
	Admissions.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.				Admissions.		Discharges.		Deaths.		Noneffective.			
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.			Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.		
Cerebro-spinal meningitis, epidemic							10	0.18			7	0.12	0.40	0.01			10	0.19			7	0.13	0.40	0.01		
Kala-azar (trypanosomiasis?)													.01	.0001									.005	.0001		
Acute infectious jaundice (Weil's disease)							1	.02					.10	.002			1	.02					.10	.002		
Other epidemic diseases	1	0.29			0.005	0.002	2,233	39.24					39.21	.69			2,147	40.08					37.29	.69		
Purulent infection and septicemia	1	.29	1	0.27	.02	.005	14	.25			5	.09	1.80	.03			14	.26			5	.09	1.80	.03		
Trichinosis							6	.11					.47	.01			6	.11					.47	.01		
Tuberculosis, pulmonary	9	2.57			9.99	2.85	240	4.22	148	2.53	33	.56	152.22	2.68			221	4.13	138	2.50	24	.43	140.57	2.62		
Tuberculosis of other organs	3	.86			.28	.08	40	.71	9	.16	7	.12	9.73	.16			38	.71	8	.14	6	.11	9.06	.17		
Syphilis and its results	6	1.71			.68	.20	1,954	34.34	142	2.43	1	.02	179.04	3.15			1,869	34.89	133	2.41			171.24	3.20		
Chancroid and its results							1,894	33.29	2	.03			116.08	2.04			1,788	33.38	2	.04			109.13	2.04		
Gonorrhea and its results	12	3.42			.98	.28	7,471	131.30	55	.95	1	.02	409.98	7.21			7,148	133.42	49	.88	1	.02	396.41	7.41		
Other venereal diseases							80	1.41					4.12	.07			80	1.49					4.12	.08		
Cancer and other malignant growths	4	1.16	2	.54	.67	.19	17	.30	2	.03	5	.09	3.59	.06			17	.33	2	.04	5	.09	3.59	.06		
Rheumatism, acute, articular	14	3.99			.38	.11	570	10.02	1	.02			30.47	.54			531	9.91	1	.02			29.39	.55		
Rheumatism, subacute and chronic articular	12	3.42			.72	.20	373	6.55	36	.61			44.64	.78			321	5.99	33	.60			40.98	.76		
Alcoholism and its results	32	9.13			.71	.20	1,687	29.65	7	.12	14	.24	21.04	.37			1,656	30.91	6	.11	14	.25	20.75	.39		
Insanity	3	.86			.23	.06	92	1.62	78	1.33			13.27	.23			87	1.62	74	1.34			12.67	.24		
Epilepsy							133	2.34	38	.65	1	.02	12.42	.22			127	2.37	35	.63	1	.02	12.19	.23		
Trachoma	1	.29			.50	.14	22	.39	4	.07			5.00	.09			22	.41	4	.07			5.00	.09		
Organic diseases of the heart	12	3.42	1	.27	1.93	.55	221	3.88	107	1.83	5	.09	24.96	.44			218	4.07	104	1.89	5	.09	24.89	.47		
Aneurism	1	.29			.24	.07	10	.18	1	.02	4	.07	1.48	.03			9	.17	1	.02	3	.05	1.39	.03		
Filariasis, lymphatic varix							1	.02					.39	.01			1	.02					.39	.01		
Functional diseases of the heart	3	.86			.14	.04	191	3.36	21	.36			9.66	.17			187	3.49	19	.34			9.33	.17		
Other diseases of the circulatory system	44	12.57			3.23	.91	1,367	24.03	25	.42	2	.04	70.04	1.26			1,290	24.08	21	.43	2	.04	67.75	1.28		
Bronchitis, acute and chronic	143	40.80			2.28	.65	3,094	51.37	8	.14	1	.02	54.59	.96			2,911	51.90	8	.14	1	.02	51.93	.97		
Broncho-pneumonia	1	.29			.05	.01	12	.21			1	.02	1.05	.02			12	.22			1	.02	1.05	.02		
Pneumonia (pneumonic fever)	6	1.71	1	.27	.66	.19	154	2.71			19	.32	14.29	.25			141	2.63			16	.29	13.01	.24		
Diarrhea and enteritis	149	42.51			2.91	.82	3,835	67.39	7	.12			61.70	1.08			3,730	69.63	6	.10			59.85	1.12		

Intestinal parasites:																						
Teniada—																						
Tenia mediocanellata (or saginata)							35	.62					.53	.01	35	.65					.53	.01
Tenia solium							25	.44					.66	.01	25	.47					.66	.01
Tenia nana							1	.02					.005	.0001	1	.02					.005	.0001
Bothriocephalus latus							2	.04					.03	.0005	2	.04					.03	.001
Ascarida—																						
Ascaris lumbricoides							20	.35					.59	.01	20	.37					.59	.01
Oxyuris vermicularis							2	.04					.05	.001	2	.04					.05	.001
Strongylida—																						
Ankylostoma duodenale							15	.26					1.02	.02	15	.28					1.02	.02
Uncinaria Americana							8	.14					1.08	.02	8	.15					1.08	.02
Trichotrachelida, trichocephalus dispar							1	.02					.05	.001	1	.02					.04	.001
Other intestinal parasites	1	.29			.05	.02	5	.09					.08	.001	5	.09					.08	.001
Inguinal and other herniæ	10	2.86			1.36	.38	325	5.71	68	1.16			38.94	.68	316	5.90	65	1.17			37.78	.71
Hepatic abscess							14	.25	1	.02	4	.07	4.07	.07	12	.22	1	.02	4	.07	3.47	.06
Appendicitis	33	9.42	2	.54	4.03	1.15	230	4.04	4	.07	12	.20	20.44	.36	218	4.07	3	.05	11	.20	19.87	.37
Climatic bubo							2	.04					.02	.0004	1	.02					.01	.0002
Tropical ulcer	2	.57			.07	.02	71	1.25					2.96	.05	71	1.33					2.96	.06
Jiggers (pulex penetrans)	1	.29			.005	.002	1	.02					.01	.0001	1	.02					.01	.0002
Pemphigus contagiosus							20	.35					.41	.01	20	.37					.41	.01
Dhobie itch	1	.29			.04	.01	184	3.23					3.79	.07	184	3.43					3.79	.07
Prickly heat							12	.21					.21	.004	12	.22					.21	.004
Other parasitic diseases of the skin	8	2.28			.38	.11	782	13.74					26.55	.48	766	14.30					26.24	.50
Acute nephritis	6	1.71			.43	.12	36	.63			2	.03	3.51	.06	33	.62			1	.02	3.34	.06
Chronic nephritis	5	1.43	3	.80	.65	.19	35	.62	13	.22	4	.07	8.01	.14	34	.63	13	.24	3	.05	7.68	.14
Malingering							76	1.34					2.88	.05	73	1.36					2.86	.05
External causes, special.																						
Fractures, exclusive of gunshot	22	6.28			2.40	.68	629	11.05	30	.51	11	.18	77.90	1.37	594	11.09	27	.49	11	.20	74.12	1.39
Dislocations	4	1.14			.11	.03	212	3.73	7	.12			13.43	.24	204	3.81	7	.13			17.98	.24
Sprains and muscular strains	100	28.54			4.94	1.41	4,197	73.76	2	.03			92.14	1.62	3,875	72.33	2	.04			86.20	1.61
Wounds, gunshot	12	3.42	5	1.34	1.31	.37	210	3.69	40	.68	55	.94	37.21	.65	183	3.42	39	.71	44	.80	34.79	.65
Wounds other than gunshot	38	10.84	1	.27	1.08	.31	3,049	53.57	19	.32	17	.29	78.66	1.38	2,859	53.36	17	.31	15	.28	73.93	1.38
Sunstroke	1	.29			.002	.001	10	.18	1	.02			.17	.003	9	.17	1	.02			.16	.003
Frostbite and general freezing	2	.57			.01	.002	84	1.48	3	.05	2	.03	3.21	.06	44	.82	2	.04	2	.04	2.32	.04
Drowning			3	.80							37	.63							37	.67		
Poisoning, acute	2	.57			.02	.004	233	4.10	1	.02	21	.36	2.66	.05	229	4.27	1	.02	21	.38	2.54	.05
Venomous bites, etc.:																						
Snake bite							2	.04					.05	.001	2	.04					.05	.001
Other venomous bites, etc	4	1.14			.05	.01	105	1.85					1.78	.03	104	1.94					1.77	.03
Diseases and injuries grouped.																						
General diseases	588	167.76	5	1.34	33.26	9.49	26,461	465.03	440	7.52	124	2.12	1,366.49	24.02	25,504	476.06	410	7.42	111	2.01	1,311.48	24.48
Epidemic diseases	488	139.23	2	.54	18.19	5.19	11,876	208.71	15	.26	50	.85	372.06	6.64	11,586	216.26	15	.27	49	.89	368.99	6.89
Other general diseases	100	28.53	3	.80	15.06	4.30	14,585	256.32	425	7.26	74	1.26	988.95	17.38	13,918	259.79	395	7.15	62	1.12	942.50	17.59

TABLE V (*a*).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, etc.*—Continued.

	Officers, United States army.						American troops—Army.								American troops—White.							
Mean strength	S. G. O. 3,505—M. S. O. 3,739.						S. G. O. 56,901—M. S. O. 58,556.								S. G. O. 53,573—M. S. O. 55,223.							
Causes of admission to sick report.	Admissions.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases of the nervous system and organs of special sense	167	47.65	1	0.27	14.80	4.23	2,956	51.95	356	6.09	11	0.19	175.43	3.09	2,830	52.93	338	6.12	9	0.16	170.30	3.18
Of the nervous system	103	29.39	1	.27	12.02	3.43	1,235	21.70	169	2.89	11	.19	82.25	1.45	1,167	21.78	158	2.86	9	.16	79.05	1.48
Of the eye and its adnexa	58	16.55	....	.....	2.41	.70	1,185	20.83	134	2.29	....	....	66.99	1.18	1,140	21.28	129	2.34	....	....	....	1.22
Of the ear and its adnexa	6	1.71	....	.....	.33	.10	536	9.42	53	.91	....	....	26.18	.46	529	9.87	51	.92	....	....	25.84	.48
Diseases of the circulatory system	60	17.12	1	.27	5.51	1.58	1,792	31.49	151	2.63	11	.19	106.57	1.87	1,706	31.84	148	2.68	10	.18	103.76	1.94
Diseases of the respiratory system	264	75.33	1	.27	6.35	1.81	5,186	91.14	37	.63	21	.36	113.11	1.99	4,855	90.62	37	.67	18	.33	107.58	2.01
Diseases of the digestive system	594	169.48	2	.54	19.58	5.59	13,717	241.07	95	1.62	27	.46	294.30	5.17	13,109	244.69	90	1.63	25	.45	283.02	5.28
Diseases of the genito-urinary system	43	12.27	3	.80	2.68	.76	926	16.27	40	.68	7	.12	47.96	.84	876	16.35	37	.67	5	.09	44.92	.84
Diseases of the skin and cellular tissue	72	20.54	....	.....	2.12	.63	5,479	96.29	31	.53	1	.02	138.98	2.44	5,285	98.66	9	.16	1	.02	133.91	2.50
Diseases of the organs of locomotion	77	21.97	....	.....	3.47	.99	2,144	37.68	80	1.37	....	....	75.85	1.33	1,959	36.57	74	1.34	....	....	70.96	1.32
Malformations, etc	2	.57	....	.....	.36	.10	170	2.99	68	1.16	....	....	15.89	.28	166	3.10	64	1.16	....	....	15.77	.29
Diseases, results of old age	.....	......	....	.....	......	......	1	.02	1	.02	....	....	.37	.01	1	.02	1	.02	....	....	.36	.01
Ill-defined diseases	41	11.70	....	.....	2.03	.58	1,393	24.48	6	.10	4	.07	33.13	.58	1,336	24.94	5	.09	3	.05	32.12	.60
Total for disease	1,908	544.37	13	3.48	90.27	25.76	60,225	1,058.42	1,308	22.34	206	3.52	2,368.06	41.62	57,633	1,075.79	1,213	21.96	182	3.30	2,274.19	42.45
External causes	270	77.03	10	2.67	12.70	3.62	13,517	237.55	156	2.66	162	2.77	416.13	7.31	12,611	235.40	146	2.64	148	2.68	392.27	7.32
Total for disease and external causes	2,178	621.40	23	6.15	102.98	29.38	73,742	1,295.97	1,464	25.00	368	6.28	2,784.19	48.93	70,244	1,311.18	1,359	24.61	330	5.98	2,666.46	49.77
Subclassification (repeated above):																						
Suicide	.....	......	3	.....	......	......	......	......	.....	.....	31	....	......	......	......	......	.....	.....	30	....	......	......
Homicide	.....	......	....	.....	......	......	......	......	.....	.....	20	....	......	......	......	......	.....	.....	12	....	......	......
Killed in action	.....	......	....	.....	......	......	......	......	.....	.....	16	....	......	......	......	......	.....	.....	16	....	......	......
Died of wounds in action	.....	......	1	.....	......	......	......	......	.....	.....	5	....	......	......	......	......	.....	.....	5	....	......	......

TABLE VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905, United States, continental (excluding Alaska).*

	United States, continental (excluding Alaska).								United States, continental (excluding Alaska), white.								United States, continental (excluding Alaska), colored.							
Mean strength	42,834.								39,506.								S. G. O. 3,328—M. S. O. 3,333.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	153	3.57			13	0.30	30.91	0.72	150	3.80			12	0.30	30.25	0.77	3	0.90			1	0.30	0.66	0.20
Fevers, undetermined	296	6.91					4.86	.11	274	6.94					4.57	.12	22	6.61					.30	.09
Malarial fevers:																								
Nonmalignant infection—																								
Intermittent	80	1.87					2.13	.05	71	1.87					2.01	.05	6	1.80					.12	.04
Remittent or continued																								
Malignant (estivo-autumnal) infection—																								
Intermittent	58	1.35					3.05	.07	57	1.44					3.03	.08	1	.30					.02	.01
Remittent or continued	24	.56			1	.02	.97	.02	24	.61			1	.03	.97	.02								
Pernicious	11	.26					.17	.004	11	.28					.17	.004								
Undetermined mal. infections—																								
Intermittent	1,659	38.73					30.69	.72	1,611	40.78					30.04	.76	48	14.42					.65	.20
Remittent or continued	46	1.07					1.76	.04	46	1.16					1.76	.04								
Malarial cachexia	61	1.42	3	0.07			5.01	.12	61	1.54	3	0.08			5.01	.13								
Hemoglobinuric fever	1	.02					.03	.001	1	.03					.03	.001								
Smallpox	7	.16					.53	.01	2	.05					.14	.004	5	1.50					.39	.12
Measles	228	5.32			1	.02	12.02	.28	221	5.59			1	.03	11.67	.30	7	2.10					.36	.11
Eruptive fevers, others	151	3.53					5.20	.11	147	3.72					4.97	.12	4	1.20					.23	.07
Diphtheria	33	.77					1.97	.05	32	.81					1.93	.05	1	.30					.03	.01
Influenza	1,685	39.34			1	.02	26.40	.62	1,608	40.70			1	.03	24.73	.63	77	23.14					1.66	.50
Cholera nostras	16	.37					.12	.003	15	.38					.12	.003	1	.30					.002	.001
Dysentery:																								
Amebic	108	2.52	9	.21	2	.05	33.04	.77	103	2.61	9	.23	2	.05	32.50	.82	5	1.50					.54	.16
Bacillary																								
Mixt infections and other dysenteries	116	2.71	3	.07	2	.05	9.82	.23	109	2.76	3	.08	2	.05	9.63	.24	7	2.10					.19	.06
Leprosy							1.00	.02							1.00	.03								
Erysipelas	40	.93					1.94	.05	40	1.01					1.94	.05								
Dengue	124	2.89					2.95	.07	124	3.14					2.95	.07								

TABLE VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905, etc.*—Cont'd.

	United States, continental (excluding Alaska).								United States, continental (excluding Alaska), white.								United States, continental (excluding Alaska), colored.							
Mean strength	42,834								39,506								S. G. O. 3,328—M. S. O. 3,333.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Mumps	632	14.75					26.57	0.62	593	15.01					24.78	0.63	39	11.72					1.79	0.54
Cerebro-spinal meningitis, epidemic	10	.23			7	0.16	.40	.01	10	.25			7	0.18	.40	.01								
Acute infectious jaundice (Weil's disease)	1	.02					.10	.002	1	.03					.10	.002								
Other epidemic diseases	2,176	50.81					38.16	.89	2,090	52.91					36.25	.92	86	25.84					1.92	.57
Purulent infection and septicemia	11	.26			4	.09	1.42	.03	11	.28			4	.10	1.42	.04								
Trichinosis	1	.02					.03	.001	1	.03					.03	.001								
Tuberculosis, pulmonary	175	4.09	148	3.46	32	.75	140.10	3.27	156	3.95	138	3.49	23	.58	128.45	3.25	19	5.71	10	3.00	9	2.70	11.65	3.50
Tuberculosis of other organs	27	.63	9	.20	5	.12	8.06	.194	25	.64	8	.20	4	.11	7.38	.183	2	.60	1	.30	1	.30	.68	.21
Syphilis and its results	1,286	30.02	142	3.32	1	.02	123.41	2.88	1,201	30.40	133	3.37			115.62	2.934	85	25.54	9	2.70	1	.30	7.81	2.34
Chancroid and its results	1,302	30.39	2	.05			81.39	1.90	1,196	30.27	2	.05			74.45	1.88	106	31.85					6.95	2.08
Gonorrhea and its results	5,021	117.21	55	1.29	1	.02	266.08	6.20	4,698	118.93	49	1.25	1	.03	252.51	6.47	323	97.05	6	1.80			13.24	3.98
Other venereal diseases	47	1.10					2.47	.06	47	1.19					2.47	.06								
Cancer and other malignant growths	10	.22	2	.05	4	.09	2.07	.042	10	.27	2	.05	4	.11	2.07	.042								
Rheumatism, acute, articular	497	11.60	1	.02			26.58	.62	458	11.59	1	.03			25.49	.65	39	11.72					1.08	.33
Rheumatism, subacute and chronic, articular	290	6.77	35	.82			38.44	.90	228	6.02	32	.81			34.78	.88	52	15.62	3	.90			3.66	1.10
Alcoholism and its results	1,294	30.22	7	.16	11	.26	15.30	.36	1,263	31.98	6	.15	11	.28	15.01	.37	31	9.31	1	.30			.29	.083
Insanity	69	1.61	78	1.82			10.02	.23	64	1.62	74	1.87			9.41	.24	5	1.50	4	1.20			.60	.18
Epilepsy	111	2.59	38	.89	1	.02	9.49	.22	105	2.66	35	.89	1	.03	9.26	.23	6	1.80	3	.90			.23	.07
Trachoma	20	.47	4	.09			4.37	.10	20	.51	4	.10			4.37	.11								
Organic diseases of the heart	201	4.69	107	2.49	4	.09	21.18	.50	198	5.02	104	2.64	4	.10	21.11	.53	3	.90	3	.90			.05	.02
Aneurism	6	.14	1	.02	2	.05	.72	.02	5	.13	1	.03	1	.03	.64	.02	1	.30			1	.30	.09	.03
Filariasis, lymphatic varix							.17	.004							.17	.004								
Functional diseases of the heart	154	3.60	21	.49			8.19	.19	150	3.80	19	.48			7.86	.20	4	1.20	2	.60			.33	.10
Other diseases of the circulatory system	948	22.13	25	.58	1	.02	47.81	1.13	871	22.05	24	.63	1	.03	45.52	1.15	77	23.13	1	.30			2.29	.69

Bronchitis, acute and chronic	2,680	62.57	7	.16	1	.02	45.48	1.06	2,527	63.98	7	.18	1	.03	42.82	1.08	153	45.97					2.66	.80
Broncho-pneumonia	10	.23					.99	.02	10	.25					.99	.03								
Pneumonia (pneumonic fever)	139	3.25			18	.42	13.36	.31	126	3.19			15	.38	12.08	.31	13	3.91			3	.90	1.27	.38
Diarrhea and enteritis	2,219	51.80	7	.16			32.90	.77	2,114	53.51	6	.16			31.05	.78	105	31.55	1	.30			1.85	.55
Intestinal parasites:																								
Temada—																								
Tenia mediocanellata (or saginata)	24	.56					.35	.01	24	.61					.35	.01								
Tenia solium	22	.51					.58	.01	22	.56					.58	.01								
Bothriocephalus latus	2	.05					.03	.001	2	.05					.03	.001								
Ascarida, ascaris lumbricoides	3	.07					.03	.001	3	.08					.03	.001								
Strongylida—																								
Ankylostoma duodenale	2	.05					.12	.003	2	.05					.12	.003								
Uncinaria Americana	1	.02					.36	.01	1	.03					.36	.01								
Trichotrachelida, tricho cephalus dispar	1	.02					.04	.001	1	.03					.04	.001								
Other intestinal parasites	2	.05					.03	.001	2	.05					.03	.001								
Inguinal and other herniæ	277	6.46	67	1.56			31.84	.74	268	6.79	64	1.62			30.68	.77	9	2.70	3	.90			1.16	.35
Hepatic abscess	9	.21	1	.02	3	.07	3.11	07	7	.18	1	.03	3	.08	2.52	.06	2	.60					.60	.18
Appendicitis	161	3.76	4	.09	9	.21	14.40	.34	149	3.77	3	.08	8	.20	13.84	.35	12	3.61	1	.30	1	.30	.57	.17
Climatic bubo	2	.05					.02	.001	1	.03					.008	.0002	1	.30					.01	.004
Tropical ulcer	9	.21					.71	.02	9	.23					.71	.02								
Jiggers (pulex penetrans)	1	.02					.008	.0002	1	.03					.008	.0002								
Pemphigus contagiosus	4	.09					.10	.002	4	.10					.10	.002								
Dhobie itch	20	.47					.61	.01	20	.51					.61	.02								
Prickly heat	3	.07					.07	.002	3	.08					.07	.002								
Other parasitic diseases of the skin	642	14.99					22.03	.51	626	15.85					21.43	.54	16	4.80					.58	.18
Acute nephritis	25	.58			2	.05	2.36	.06	22	.56			1	.03	2.19	.06	3	.90			1	.30	.17	.05
Chronic nephritis	31	.72	13	.30	3	.07	7.88	.18	30	.76	13	.33	2	.05	7.56	.19	1	.30			1	.30	.34	.10
Malingering	60	1.40					2.18	.05	57	1.44					2.16	.05	3	.90					.02	.01
External causes, special.																								
Fractures, exclusive of gunshot	511	11.94	30	.70	8	.18	63.98	1.49	476	12.05	27	.68	8	.21	60.21	.19	35	10.52	3	.90			3.78	1.14
Dislocations	183	4.27	7	.16			10.46	.21	175	4.43	7	.18			10.00	.25	8	2.40					.46	.14
Sprains and muscular strains	3,532	82.46	2	.05			76.57	1.79	3,210	81.28	2	.05			70.62	1.79	322	96.76					5.96	1.79
Wounds, gunshot	147	3.43	40	.93	35	.82	24.19	.56	120	3.04	39	.99	24	.61	21.76	.55	27	8.11	1	.30	11	3.30	2.43	.73
Wounds other than gunshot	2,349	54.85	19	.44	8	.18	59.43	1.38	2,159	54.65	17	.43	6	.15	51.71	1.39	190	57.08	2	.60	2	.60	4.73	1.43
Sunstroke	5	.11	1	.02			.09	.002	4	.10	1	.03			.05	.002	1	.30					.01	.004
Frostbite and general freezing	74	1.73	2	.05	2	.05	2.54	.06	34	.86	1	.03	2	.05	1.65	.04	40	12.02	1	.30			.89	.27
Drowning					22	.51		.0003					22	.56	.01	.0002								
Poisoning, acute	147	3.43	1	.02	17	.40	1.75	.04	143	3.62	1	.03	17	.43	16.30	.04	4	1.20					.12	.04

TABLE VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905, etc.*—Cont'd.

	United States, continental (excluding Alaska).								United States, continental (excluding Alaska), white.								United States, continental (excluding Alaska), colored.							
Mean strength	42,834.								39,506.								S. G. O. 3,328—M. S. O. 3,333.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Venomous bites, etc.:																								
Snake bite	2	0.05	....	....	....	....	0.05	0.001	2	0.05	....	....	....	....	....	0.001	....	....	....	....	....	....	....	....
Other venomous bites, etc.	40	.93	....	....	....	....	.85	.02	39	.99	....	....	....	....	0.84	.02	1	0.30	....	....	....	....	0.008	0.002
Diseases and injuries grouped.																								
General diseases	17,558	409.91	438	10.23	90	2.10	953.83	22.23	16,601	420.21	408	10.33	77	1.95	896.82	22.70	957	287.56	30	9.00	13	3.90	55.01	16.53
Epidemic diseases	7,420	173.23	15	.35	27	.63	231.96	5.49	7,130	180.48	15	.38	26	.66	226.41	5.73	290	87.14	....	....	1	.30	8.55	2.57
Other general diseases	10,138	236.68	423	9.88	63	1.47	716.87	16.74	9,471	239.71	393	9.95	51	1.29	670.41	16.97	667	200.42	30	9.00	12	3.60	46.46	13.96
Diseases of the nervous system and organs of special sense	2,181	50.91	352	8.22	7	.16	134.11	3.13	2,061	52.17	334	8.46	5	.13	129.01	3.27	120	36.05	18	5.40	2	.60	5.12	1.54
Of the nervous system	835	19.49	167	3.90	7	.16	59.65	1.39	767	19.42	156	3.95	5	.13	56.45	1.43	68	20.43	11	3.30	2	.60	3.21	.96
Of the eye and its adnexa	960	22.41	134	3.13	....	....	54.82	1.28	915	23.16	129	3.27	....	....	53.23	1.35	45	13.52	5	1.50	....	....	1.59	.48
Of the ear and its adnexa	386	9.01	51	1.19	....	....	19.66	.46	379	9.59	49	1.24	....	....	19.33	.49	7	2.10	2	.60	....	....	.33	.10
Diseases of the circulatory system	1,311	30.61	154	3.60	7	.16	78.10	1.82	1,225	31.01	148	3.75	6	.15	75.30	1.91	86	25.84	6	1.80	1	.30	2.79	.84
Diseases of the respiratory system	4,504	105.15	36	.84	19	.44	95.29	2.22	4,173	105.63	36	.91	16	.41	89.76	2.27	331	99.46	....	....	3	.90	5.53	1.66
Diseases of the digestive system	10,015	233.81	94	2.19	20	.47	207.02	4.83	9,407	238.12	89	2.25	18	.46	19.57	4.95	608	182.70	5	1.50	2	.60	11.28	3.39
Diseases of the genito-urinary system	670	15.64	39	.91	5	.11	36.86	.86	620	15.70	36	.91	3	.08	33.82	.86	50	15.02	3	.90	2	.60	3.04	.91
Diseases of the skin and cellular tissue	3,772	88.06	31	.72	1	.02	96.72	2.26	3,578	90.59	9	.23	1	.03	91.65	2.32	194	58.29	22	6.60	....	....	5.07	1.52

Diseases of the organs of locomotion	1,730	40.39	78	1.82	....	....	62.13	1.45	1,545	39.12	72	1.82	....	....	57.24	1.45	185	55.59	6	1.80	....	....	4.90	1.47
Malformations, etc	155	3.62	67	1.56	....	....	13.26	.31	151	3.82	63	1.60	....	....	13.14	.33	4	1.20	4	1.20	....	....	.12	.04
Diseases, results of old age	....	....	1	.02	....	....	.11	.002	....	....	1	.03	....	....	.11	.003	....	....	....	....	....	....	....	....
Ill-defined diseases	843	19.68	6	.14	3	.07	22.07	.52	786	19.90	5	.13	2	.05	21.06	.53	57	17.13	1	.30	1	.30	1.01	.30
Total for disease	42,739	997.78	1,296	30.26	152	3.55	1,697.52	39.64	40,147	1,016.23	1,201	30.41	128	3.24	1,603.65	40.59	2,592	778.85	95	28.50	24	7.20	93.87	28.21
External causes	10,816	252.51	155	3.62	111	2.59	326.61	7.63	9,910	250.85	145	3.67	97	2.46	302.75	7.66	906	272.24	10	3.00	14	4.20	23.86	7.17
Total for disease and external causes	53,555	1,250.29	1,451	33.88	263	6.14	2,024.14	47.26	50,057	1,267.08	1,346	34.07	225	5.70	1,906.41	48.25	3,498	1,051.08	105	31.50	38	11.40	117.73	35.38
Subclassification (repeated above):																								
Suicide	....	....	....	....	26	....	....	....	....	....	....	....	25	....	....	....	....	....	....	....	1	....	....	....
Homicide	....	....	....	....	16	....	....	....	....	....	....	....	8	....	....	....	....	....	....	....	8	....	....	....

TABLE VII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905—Alaska, Philippine Islands, and Hawaii.*

	Alaska.								Philippine Islands.								Hawaii.							
Mean strength	854.								11,057.								176.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever									31	2.80			3	0.27	6.70	0.61								
Fevers, undetermined	1	1.17					0.02	0.02	390	35.27					6.15	.56								
Malarial fevers:																								
Nonmalignant infection, intermittent									308	27.86					4.92	.44								
Malignant (estivo-autumnal) infection—																								
Intermittent									483	43.68			1	.09	10.59	.96								
Remittent or continued									181	16.37					5.72	.52								
Pernicious									5	.45			5	.45	.31	.03								
Undetermined mal. infection—																								
Intermittent	1	1.17					.02	.02	1,808	163.52					32.34	2.93	1	5.68					0.01	0.08
Remittent or continued									77	6.96					1.99	.18								
Malarial cachexia	1	1.17					.005	.01	29	2.62			1	.09	1.80	.16								
Hemoglobinuric fever									1	.09					.05	.005								
Smallpox	1	1.17					.08	.10	3	.27					.36	.03								
Measles									30	2.71					1.71	.15								
Eruptive fevers, others									1	.09					.04	.004								
Diphtheria									1	.09					.12	.01								
Influenza	10	11.71					.39	.46	1	.09					.01	.001								
Asiatic cholera									9	.81			2	.18	.41	.04								
Cholera nostras									4	.36					.02	.001								
Dysentery:																								
Amebic	1	1.17					.27	.31	316	28.58			3	.27	29.55	2.67								
Bacillary	2	3.51					.30	.35	8	.72					.28	.03								
Mixt infections and other dysenteries	4	4.68					.26	.30	380	34.37			4	.36	18.81	1.70								
Beriberi									5	.45			2	.18	.76	.07								
Erysipelas									5	.45					.33	.03								
Dengue									341	30.84					5.98	.54	1	5.68					.01	.08
Mumps									27	2.44					1.31	.12								
Kala-azar (trypanosomiasis?)															.01	.0005								

Other epidemic diseases	1	1.17					.01	.01	37	3.35					.69	.06	4	22.72					.04	.23
Purulent infection and septicemia									2	.18					.35	.03								
Trichinosis									5	.45					.44	.04								
Tuberculosis, pulmonary	3	3.51			1	1.17	.54	.63	57	5.16					6.45	.58	1	5.68					.25	1.43
Tuberculosis of other organs	6	7.02					.41	.49	7	.63			2	.18	1.09	.10								
Syphilis and its results	13	15.22					.68	.80	610	55.17					50.92	4.60	6	34.09					.61	3.48
Chancroid and its results	5	5.85					.16	.19	524	47.39					31.51	2.86	4	22.72					.41	2.35
Gonorrhea and its results	27	31.61					.98	1.15	2,218	200.60					134.11	12.12	17	96.58					1.26	7.18
Other venereal diseases	1	1.17					.02	.02	29	2.62					1.57	.14								
Cancer and other malignant growths									6	.54			1	.09	.96	.09								
Rheumatism, acute, articular	3	3.51					.02	.02	56	5.06					3.29	.30	1	5.68					.04	.20
Rheumatism, subacute and chronic, articular	9	10.54					.49	.58	69	6.24					5.02	.45	1	5.68	1	5.68			.19	1.09
Alcoholism and its results	43	50.35					.44	.51	333	30.12			3	.27	4.98	.44	7	39.77					.10	.59
Insanity	2	2.34					.06	.07	16	1.45					1.65	.15								
Epilepsy	4	4.68					.08	.10	15	1.36					1.99	.18								
Trachoma									1	.09					.34	.03							.06	.31
Organic diseases of the heart	2	2.34			1	1.17	.05	.06	18	1.63					3.15	.29								
Aneurism									2	.18			2	.18	.65	.06								
Filariasis, lymphatic varix									1	.09					.12	.01								
Functional diseases of the heart	5	5.85					.12	.13	30	2.71					1.16	.11								
Other diseases of the circulatory system	15	17.56					.74	.85	370	33.45			1	.09	20.10	1.82	8	45.46					.39	2.20
Bronchitis, acute and chronic	39	45.66					.74	.86	289	26.14	1	.09			7.00	.64	6	31.09					.06	.32
Broncho-pneumonia									1	.09			1	.09	.01	.001								
Pneumonia (pneumonic fever)									10	.90					.75	.07								
Diarrhea and enteritis	17	19.90					.28	.33	1,474	133.31					26.08	2.35	6	34.09					.05	.29
Intestinal parasites:																								
Teniada—																								
Tenia mediocanellata (or saginata)									10	.90					.18	.02								
Tenia solium									3	.27					.08	.01								
Tenia nana									1	.09					.01	.0005								
Ascarida—																								
Ascaris lumbricoides									17	1.54					.56	.05								
Oxyuris vermicularis									2	.18					.05	.004								
Strongylida—																								
Ankylostoma duodenale									13	1.18					.82	.07								
Uncinaria Americana									7	.63					.63	.06								
Other intestinal parasites									3	.27					.05	.004								
Inguinal and other herniæ	5	5.85	1	1.17			.63	.74	39	3.53					6.08	.55	1	5.68					.01	.03
Hepatic abscess									5	.45			1	.09	.78	.07								
Appendicitis	6	7.03					.25	.30	53	4.79			2	.18	5.13	.46	1	5.68					.02	.11
Tropical ulcer									60	5.43					2.07	.19								
Pemphigus contagiosus									16	1.45					.30	.03								
Dhobie itch									161	14.56					3.12	.28								
Prickly heat									5	.45					.10	.01								

TABLE VII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905, etc.*—Cont'd.

	Alaska.								Philippine Islands.								Hawaii.							
Mean strength	854.								11,057.								176.							
Causes of admission to sick report.	Admissions.		Dis-charges.		Deaths.		Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Other parasitic diseases of the skin	12	14.05					1.15	1.35	199	9.85					2.97	0.26	4	22.73					0.27	1.54
Acute nephritis	1	1.17					.07	.08	9	.81					.76	.07								
Chronic nephritis									4	.36			1	0.09	.12	.01								
Malingering	1	1.17					.03	.04	13	1.18					.57	.05								
External causes, special.																								
Fractures, exclusive of gunshot	5	5.85					.66	.78	97	8.77			3	.27	11.35	1.03	2	11.36					.24	1.34
Dislocations	1	1.17					.08	.10	27	2.14					2.74	.25								
Sprains and muscular strains	79	92.51					1.47	1.73	548	49.56					12.95	1.17	11	62.50					.17	.95
Wounds, gunshot	2	2.34			1	1.17	.16	.18	59	5.34			19	1.72	11.13	1.01	1	5.68					.02	.11
Wounds other than gunshot	53	62.07					1.55	1.82	629	56.89			9	.81	16.89	1.53	9	51.13					.11	.64
Sunstroke									5	.45					.08	.01								
Frostbite and general freezing	10	11.71	1	1.17			.67	.79																
Drowning													11	1.27										
Poisoning, acute	5	5.85			2	2.34	.07	.08	70	6.33			2	.18	.81	.07								
Venomous bites, etc									61	5.52					.82	.07	2	11.36					.03	.16
Diseases and injuries grouped.																								
General diseases	139	162.76	1	1.17	1	1.17	5.50	6.44	8,059	728.86			29	2.62	368.68	33.35	43	244.32	1	5.68			2.94	16.72
Epidemic diseases	22	25.76					1.33	1.56	4,091	369.99			21	1.90	124.80	11.29	6	34.09					.07	.39
Other general diseases	117	137.00	1	1.17	1	1.17	4.17	4.88	3,968	358.87			8	.72	243.87	22.06	37	210.23	1	5.68			2.87	16.33
Diseases of the nervous system and organs of special sense	65	76.11	4	4.68	2	2.34	4.44	5.21	553	50.02			2	.18	28.44	2.58	5	28.41					.69	3.92
Of the nervous system	41	48.01	2	2.34	2	2.34	2.49	2.91	227	20.53			2	.18	13.96	1.26	4	22.73					.39	2.24
Of the eye and its adnexa	14	16.39					.69	.81	197	17.82					9.90	.90							.22	1.23
Of the ear and its adnexa	10	11.71	2	2.34			1.27	1.49	129	11.67					4.57	.42	1	5.68					.08	.45

Diseases of the circulatory system	22	25.76	....	....	1	1.17	.91	1.06	421	38.07	....	....	3	.27	25.19	2.28	8	45.45	....	.....	....	....	.39	2.19
Diseases of the respiratory system	68	79.63	....	....	....	....	1.64	1.92	486	43.95	1	0.09	1	.09	13.53	1.22	7	39.77	....	.....	....	....	.08	.47
Diseases of the digestive system	138	161.59	1	1.17	....	....	2.82	3.31	3,196	289.05	....	....	6	.54	74.71	6.76	36	204.55	....	.....	....	....	.57	3.22
Diseases of the genito-urinary system	10	11.71	1	1.17	....	....	.74	.87	228	20.62	....	....	2	.18	9.07	.82	3	17.05	....	.....	....	....	.38	2.13
Diseases of the skin and cellular tissue	66	77.28	....	....	....	....	2.24	2.62	1,538	139.10	....	....	....	.....	36.74	3.32	23	130.68	....	.....	....	....	.91	5.17
Diseases of the organs of locomotion	71	83.14	1	1.17	....	....	1.64	1.92	312	28.22	....	....	....	.....	10.50	.95	7	39.77	....	.....	....	....	.24	1.35
Malformations, etc	2	2.34	1	1.17	....	....	.005	.01	12	1.09	....	....	....	.....	2.08	.19	1	5.68	....	.....	....	....	.04	.20
Diseases, results of old age	....	....	....	....	....	....	....	.....	1	.09	....	....	....	.....	.17	.02	....	....	....	.....	....	....	.....	.....
Ill-defined diseases	6	7.03	....	....	1	1.17	.22	.26	528	47.75	....	....	....	.....	10.42	.94	1	5.68	....	.....	....	....	.01	.05
Total for disease	587	687.35	9	10.54	5	5.85	20.17	23.62	15,334	1,386.81	1	.09	43	3.89	579.51	52.42	134	761.36	1	5.68	....	....	6.24	35.43
External causes	220	257.61	1	1.17	3	3.51	6.13	7.18	2,354	212.90	....	....	47	4.25	76.53	6.87	42	238.64	....	.....	....	....	.76	4.30
Total for disease and external causes	807	944.97	10	11.71	8	9.37	26.30	30.80	17,688	1,599.72	1	.09	90	8.14	655.59	59.28	176	1,000.00	1	5.68	...	....	6.99	39.73
Subclassification (repeated above):																								
Suicide	....	....	....	....	....	....	....	.....	.....	....	....	....	4	.....	.....	.....	....	....	....	.....	....	....	.....	.....
Homicide	....	....	....	....	....	....	....	.....	.....	....	....	....	1	.....	.....	.....	....	....	....	.....	....	....	.....	.....
Killed in action	....	....	....	....	....	....	....	.....	.....	....	....	....	16	.....	.....	.....	....	....	....	.....	....	....	.....	.....
Died of wounds in action	....	....	....	....	....	....	....	.....	.....	....	....	....	5	.....	.....	.....	....	....	....	.....	....	....	.....	.....

TABLE VII (*a*).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905—China, and army transports.*

	China.								Transports.							
Mean strength	110.								1,870.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever							0.08	0.72	9	4.81			1	0.53	0.78	0.42
Fevers, undetermined									9	4.81						
Malarial fevers:																
Nonmalignant infection, remittent or continued									1	.53					.02	.01
Malignant (estivo-autumnal) infection—																
Intermittent									5	2.67					.11	.06
Remittent or continued									1	.53					.09	.05
Pernicious									1	.53					.05	.03
Undetermined mal. infection—																
Intermittent	18	163.64					.23	2.09	182	97.33					2.74	1.47
Remittent or continued									11	5.88					.12	.06
Malarial cachexia									2	1.07					.53	.28
Measles									39	20.85					1.19	.64
Eruptive fevers, others									2	1.07					.02	.01
Dysentery:																
Amebic									10	5.35			1	.53	6.87	3.67
Mixt infections and other dysenteries	1	9.09					.06	.55	17	9.09					2.34	1.25
Erysipelas									1	.53					.03	.02
Dengue									6	3.21					.12	.07
Mumps									16	8.56					.68	.36
Other epidemic diseases	1	9.09					.01	.12	14	7.49					.29	.16
Purulent infection and septicemia									1	.53			1	.53	.03	.02
Tuberculosis, pulmonary									4	2.14					4.87	2.61
Tuberculosis of other organs															.18	.10
Syphilis and its results	8	72.73					.44	4.01	31	16.58					2.98	1.60
Chancroid and its results	14	127.28					.99	9.01	45	24.06					1.59	.85
Gonorrhea and its results	26	236.36					1.14	10.34	162	86.62					6.41	3.44
Other venereal diseases									3	1.60					.09	.05
Cancer and other malignant growths									1	.53					.56	.31
Rheumatism, acute, articular									13	6.95					.55	.29
Rheumatism, subacute and chronic, articular									4	2.14					.50	.27
Alcoholism and its results	8	72.73					.06	.57	2	1.07					.15	.08
Insanity									5	2.67					1.54	.82

Epilepsy									3	1.60					.85	.46
Trachoma									1	.53					.22	.12
Organic diseases of the heart															.57	.30
Aneurism									2	1.07					.10	.06
Filariasis, lymphatic varix															.10	.05
Functional diseases of the heart									2	1.07					.19	.10
Other diseases of the circulatory system	2	18.18					.13	1.17	24	12.82					.88	.47
Bronchitis, acute and chronic	9	81.82					.11	1.05	71	37.97					1.16	.63
Broncho-pneumonia									1	.53					.05	.03
Pneumonia (pneumonic fever)									5	2.67			1	.53	.18	.10
Diarrhea and enteritis	10	90.91					.05	.42	109	58.29					2.33	1.24
Intestinal parasites:																
Teniada, tenia mediocanellata (or saginata)	1	9.09					.003	.02								
Strongylida—																
Ankylostoma duodenale															.08	.05
Uncinaria Americana															.09	.05
Inguinal and other herniæ	1	9.09					.18	1.67	2	1.07					.19	.10
Hepatic abscess															.18	.10
Appendicitis	4	36.36			1	9.09	.20	1.79	5	2.67					.42	.23
Tropical ulcer	1	9.09					.10	.90	1	.53					.10	.05
Dhobie itch									3	1.60					.06	.03
Prickly heat									4	2.14					.04	.02
Other parasitic diseases of the skin									15	8.02					.39	.21
Acute nephritis									1	.53					.32	.17
Malingering									2	1.07					.10	.05
External causes, special.																
Fractures, exclusive of gunshot	4	36.36					.65	5.90	10	5.35					1.01	.54
Dislocations	1	9.09					.03	.27							.12	.06
Sprains and muscular strains	10	90.91					.12	1.10	17	9.09					.87	.47
Wounds, gunshot	1	9.09					.35	3.21							1.36	.73
Wounds other than gunshot									9	4.80					.67	.37
Drowning													1	.53		
Poisoning, acute									11	5.88					.03	.02
Venomous bites, etc	1	9.09					.07	.67	1	.53					.01	.01
Diseases and injuries grouped.																
General diseases	77	700.00					3.05	27.75	585	312.83			4	2.14	34.50	18.45
Epidemic diseases	20	181.82					.38	3.49	317	169.52			2	1.07	15.99	8.55
Other general diseases	57	518.18					2.67	21.26	268	143.32			2	1.07	18.51	9.90
Diseases of the nervous system and organs of special sense	1	9.09					.008	.07	151	80.76					7.70	4.12
Of the nervous system	1	9.09					.008	.07	127	67.92					5.75	3.07
Of the eye and its adnexa									14	7.49					1.36	.73
Of the ear and its adnexa									10	5.35					.59	.32

TABLE VII (*a*).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905, etc.*—Con.

	China.								Transports.							
Mean strength	110.								1,870.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases of the circulatory system	2	18.18					0.13	1.17	28	14.97					1.85	0.99
Diseases of the respiratory system	9	81.82					.11	1.05	112	59.89			1	0.53	2.45	1.31
Diseases of the digestive system	54	490.91			1	9.09	.94	8.52	278	148.66					8.24	4.40
Diseases of the genito-urinary system									15	8.02					.91	.49
Diseases of the skin and cellular tissue	3	27.27					.12	1.12	77	41.18					2.25	1.21
Diseases of the organs of locomotion	8	72.73	1	9.09			.44	3.96	16	8.56					.90	.48
Malformations, etc															.51	.27
Diseases, results of old age															.10	.05
Ill-defined diseases									15	8.02					.42	.22
Total for disease	154	1,400.00	1	9.09	1	9.09	4.80	43.64	1,277	682.89			5	2.67	59.82	31.99
External causes	21	190.91					1.36	12.33	64	34.22			1	.53	5.29	2.83
Total for disease and external causes	175	1,590.91	1	9.09	1	9.09	6.16	55.97	1,341	717.11			6	3.21	65.11	34.82
Subclassification (repeated above): Suicide													1			

TABLE VIII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1905—Porto Rican and Filipino troops.*

	Porto Rican troops.								Filipino troops.							
Mean strength	550.								S. G. O. 4,732—M. S. O. 4,948.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever									7	1.48			2	0.40	0.57	0.12
Fevers, undetermined	2	3.64					0.03	0.06	74	15.64					1.27	.27
Malarial fevers:																
Nonmalignant infection, intermittent	6	10.91					1.13	2.05	75	15.85					1.00	.21
Malignant (estivo-autumnal) infection—																
Intermittent									74	15.64					2.40	.51
Remittent or continued									29	6.13					.84	.18
Pernicious									5	1.06			3	.61	.27	.06
Undetermined mal. infection—																
Intermittent	78	141.82					1.80	3.27	2,282	482.25					34.64	7.32
Remittent or continued	13	23.64					.52	.94	237	50.08			1	.20	4.53	.96
Malarial cachexia	1	1.82					.01	.02	8	1.69					.35	.07
Smallpox	2	3.64					.23	.42	5	1.06					.40	.08
Measles	4	7.27					.24	.44								
Eruptive fevers, others									10	2.12					.27	.06
Influenza	21	38.18					.45	.81	8	1.69					.10	.02
Asiatic cholera									4	.85			2	.40	.08	.02
Cholera nostras									4	.85					.08	.02
Dysentery:																
Amebic	1	1.82					.02	.03	13	2.75					1.63	.34
Mixt infections and other dysenteries	1	1.82					.04	.06	95	20.08					3.61	.76
Leprosy											1	0.20			.07	.01
Beriberi									170	35.93	1	.20	6	1.21	21.92	4.63
Erysipelas	1	1.82					.02	.03	2	.42					.07	.02
Dengue									31	6.55					.86	.18
Mumps									17	3.59					.60	.13
Yaws (frambesia)									3	.63					.50	.11
Other epidemic diseases									3	.63					.11	.02
Tuberculosis, pulmonary			1	1.82			.22	.39	26	5.49	10	2.02	7	1.41	7.73	1.63
Tuberculosis of other organs									3	.63					.09	.02
Syphilis and its results	37	67.27	7	12.73			3.83	6.97	32	6.76	2	.40			2.95	.62
Chancroid and its results	71	129.09					4.59	8.34	44	9.29					2.49	.53
Gonorrhea and its results	98	178.18	2	3.64			5.96	10.83	207	43.73	1	.20			10.55	2.23
Rheumatism, acute, articular	21	38.18					.53	.96	23	4.86					.65	.14

TABLE VIII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratio per 1,000 of mean strength, for the year 1905, etc.*—Continued.

	Porto Rican troops.								Filipino troops.							
Mean strength	550.								S. G. O. 4,732—M. S. O. 4,948.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Rheumatism, subacute and chronic, articular	4	7.27	1	1.82			0.11	0.19	7	1.48					0.60	0.13
Alcoholism and its results	1	1.82					.01	.01	3	.63			1	0.20	.02	.005
Insanity	1	1.82					.08	.15	4	.85	1	0.20			.90	.19
Tetanus									1	.21						
Organic diseases of the heart	1	1.82			1	1.82	.03	.06	6	1.27			2	.40	.18	.03
Filariasis, lymphangitis, and elephantoid fever	1	1.82					.21	.39								
Functional diseases of the heart									3	.63					.05	.01
Other diseases of the circulatory system	18	32.73			1	1.82	1.08	1.96	34	7.18	1	.20	1	.20	1.36	.30
Bronchitis, acute and chronic	38	69.09					1.02	1.86	216	45.64	1	.20			3.94	.83
Broncho-pneumonia									2	.42					.05	.01
Pneumonia (pneumonic fever)									19	4.02			3	.61	1.29	.27
Diarrhea and enteritis	19	34.54					.26	.47	293	61.92					3.74	.79
Intestinal parasites:																
Teniada—																
Tenia mediocanellata (or saginata)	1	1.82					.01	.01	2	.42					.04	.01
Tenia solium	1	1.82					.01	.01								
Ascarida, ascaris lumbricoides	1	1.82					.01	.02	3	.63					.09	.02
Strongylida—																
Ankylostoma duodenale									3	.63					.15	.03
Uncinaria Americana	1	1.82					.05	.09	4	.85					.15	.03
Other intestinal parasites									2	.42					.08	.02
Inguinal and other herniæ									4	.85					.63	.13
Appendicitis									4	.85					.47	.10
Tropical ulcer									29	6.13					1.30	.28
Pemphigus contagiosus									15	3.17					.59	.12
Dhobie itch									68	14.37					1.41	.30
Tenia imbricata	2	3.64					.18	.33								
Prickly heat									1	.21					.02	.01
Other parasitic diseases of the skin	11	20.00					.31	.56	39	8.24					1.60	.33
Acute nephritis	1	1.82					.05	.09	4	.85					.30	.06
Chronic nephritis									1	.21			1	.20	.01	.001
Malingering									3	.63					.02	.004

External causes, special.																
Fractures, exclusive of gunshot	1	1.82	1	1.82	......	......	.21	.37	12	2.54	......	......	......	......	.91	.19
Dislocations	......	......	......	......	......	......	......	......	2	.42	......	......	......	......	.03	.01
Sprains and muscular strains	8	14.55	......	......	......	......	.18	.32	75	15.85	......	......	......	......	1.13	.24
Wounds, gunshot	3	5.45	......	......	1	1.82	.24	.43	18	3.80	......	......	13	2.63	2.34	.49
Wounds other than gunshot	21	38.18	......	......	......	......	.68	1.22	146	30.86	......	......	......	......	4.15	.88
Sunstroke	......	......	......	......	......	......	......	......	3	.63	......	......	1	.20	.02	.004
Frostbite and general freezing	......	......	......	......	......	......	......	......	2	.42	......	......	......	......	.03	.01
Drowning	......	......	......	......	......	......	......	......	......	......	......	......	7	1.41	......	......
Poisoning, acute	1	1.82	......	......	......	......	.02	.03	2	.42	......	......	......	......	.04	.01
Venomous bites, etc	1	1.82	......	......	......	......	.03	.05	12	2.54	......	......	......	......	.13	.03
Diseases and injuries grouped.																
General diseases	363	660.00	11	20.00	......	......	19.72	35.85	3,436	726.12	15	3.03	23	4.65	100.81	21.30
Epidemic diseases	128	232.73	......	......	......	......	4.44	8.07	3,082	651.31	2	.40	14	2.83	74.89	15.83
Other general diseases	235	427.27	11	20.00	......	......	15.28	27.78	354	74.81	13	2.63	9	1.82	25.92	5.48
Diseases of the nervous system and organs of special sense	43	78.18	......	......	......	......	1.28	2.32	147	31.06	1	.20	......	......	5.45	1.15
Of the nervous system	26	47.27	......	......	......	......	.31	.56	33	6.97	1	.20	......	......	2.37	.50
Of the eye and its adnexa	12	21.82	......	......	......	......	.56	1.02	93	19.65	......	......	......	......	2.14	.45
Of the ear and its adnexa	5	9.09	......	......	......	......	.41	.74	21	4.44	......	......	......	......	.93	.20
Diseases of the circulatory system	20	36.36	......	......	2	3.64	1.33	2.42	43	9.09	1	.20	3	.61	1.59	.34
Diseases of the respiratory system	43	78.18	......	......	......	......	1.28	2.32	299	63.19	3	.61	3	.61	8.36	1.77
Diseases of the digestive system	120	218.18	......	......	......	......	1.88	3.43	705	148.98	......	......	1	.20	11.65	2.33
Diseases of the genito urinary system	14	25.45	......	......	......	......	.65	1.19	41	8.66	......	......	1	.20	1.38	.29
Diseases of the skin and cellular tissue	79	143.63	......	......	......	......	2.85	5.19	541	114.33	......	......	......	......	14.10	2.98
Diseases of the organs of locomotion	29	52.73	......	......	......	......	.62	1.13	74	15.64	......	......	......	......	1.59	.34
Malformations, etc	......	......	......	......	......	......	......	......	1	.21	1	.20	......	......	.61	.13
Ill defined diseases	2	3.64	......	......	......	......	.03	.06	95	20.08	......	......	1	.20	2.18	.46
Total for disease	713	1,296.36	11	20.00	2	3.64	29.65	53.90	5,382	1,137.36	21	4.24	32	6.47	147.11	31.09
External causes	60	109.09	1	1.82	1	1.82	2.17	3.94	523	110.52	......	......	21	4.24	12.38	2.62
Total for disease and external causes	773	1,405.45	12	21.82	3	5.45	31.81	57.84	5,905	1,247.89	21	4.24	53	10.71	159.48	33.70
Subclassification (repeated above):																
Suicide	......	......	......	......	1	......	......	......	......	......	......	......	1	......	......	......
Killed in action	......	......	......	......	......	......	......	......	......	......	......	......	6	......	......	......
Died of wounds in action	......	......	......	......	......	......	......	......	......	......	......	......	2	......	......	......

INTERNATIONAL MILITARY MEDICAL STATISTICS FOR THE YEAR 1905.

The following tables are those agreed upon at the meeting of the International Commission for the Unification of the Medical Statistics of Armies held at Budapest in 1894 and modified by the last meeting held at Madrid in 1903. They are calculated for the United States Army proper (white and colored) and include enlisted men only. Dispositions include cases remaining from last year, but do not include cases remaining at the close of the current year. Deaths include suicides and accidents. Days lost include those lost this year by cases remaining from last year.

Table I shows in absolute numbers, by departments, the mean strength of the command, the admissions to quarters, to hospital, and total admissions; the disposition of the sick, total, and the number returned to duty, died, and otherwise disposed of, and the total number of days of sickness.

Table II gives the same data in ratios per 1,000, and also shows the days lost per soldier and per admission.

Table III shows, by arms of service, the mean strength, the total admissions, and those to hospital only, the total dispositions, and the number of those returned to duty, and the number that died.

Table IV gives the same data as Table III by months.

Table V shows for each of forty-six of the larger garrisons the mean strength, admissions to hospital, total admissions, and the deaths.

Table VI shows for each of the thirty-five diseases or disease groups agreed upon by the International Commission the number remaining under treatment at the commencement and close of the current year, the admissions and dispositions for the year, the total sick days, and the average number of days per case.

Table VII shows the admissions by arms of service for the diseases and disease groups referred to in Table VI.

Table VIII shows the same data as Table VII by months.

Table IX shows deaths by rank, by length of service, and by age.

Table X shows the same data as Table IX for discharges for physical disability.

INTERNATIONAL TABLE I.—*Movement of sick, by army corps (departments), absolute numbers.*

Department.	Mean strength.	Admitted sick.			Sick disposed of.				Total days sick.
		Total.	To hospital.	To quarters.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Total.	
The United States (excluding Alaska):									
Department of the East	13,131	16,000	10,300	5,700	15,562	52	473	16,027	175,191
Department of the Gulf	3,131	3,864	3,165	699	3,695	12	156	3,863	50,485
Department of the Lakes	2,700	4,376	3,558	818	3,918	12	385	4,315	62,700
Department of the Missouri	8,078	10,547	6,686	3,861	9,979	48	406	10,433	105,265
Department of Dakota	2,566	3,063	2,367	696	2,909	22	114	3,045	37,758
Department of Texas	3,144	3,798	2,834	964	3,636	25	115	3,776	43,867
Department of the Colorado	2,234	2,924	2,161	763	2,810	9	85	2,904	31,393
Department of California	4,510	5,448	3,422	2,026	4,601	19	163	4,783	50,630
Department of the Columbia (excluding Alaska)	2,849	2,902	2,362	540	2,729	11	157	2,897	37,846
General hospitals	491	633	474	159	1,378	53	651	2,082	143,675
Total	42,834	53,555	37,329	16,226	51,157	263	2,705	54,125	738,810
Alaska	854	807	560	247	767	8	23	798	9,600

INTERNATIONAL TABLE I.—*Movement of sick, by army corps, etc.*—Continued.

Department.	Mean strength.	Admitted sick.			Sick disposed of.				Total days sick.
		Total.	To hospital.	To quarters.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Total.	
The Philippines Division:									
Department of Luzon	5,362	8,662	6,987	1,675	7,789	24	177	7,990	91,713
Department of the Visayas	2,302	4,213	3,273	940	3,962	13	133	4,108	52,649
Department of Mindanao	3,274	4,635	3,699	936	4,472	45	72	4,589	61,030
General hospitals and inter-island transports	119	178	171	7	694	8	18	720	33,865
Total	11,057	17,688	14,130	3,558	16,917	90	400	17,407	239,257
China	110	175	111	64	175	1	5	181	2,247
Hawaii	176	176	108	68	161	.....	4	165	2,552
Army transports	1,870	1,341	1,077	264	1,205	6	30	1,241	23,764
The United States Army.	56,901	73,742	53,315	20,427	70,382	368	3,167	73,917	1,016,230

INTERNATIONAL TABLE II.—*Movement of sick by army corps (departments), proportionate numbers.*

Department.	In 1,000 of mean strength.			In 1,000 sick disposed of.			Days lost.	
	Total admissions.	Admissions to hospital.	Deaths.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Per soldier.	Per admission.
The United States (excluding Alaska):								
Department of the East	1,218.49	784.40	3.96	967.25	3.24	29.51	13.34	10.95
Department of the Gulf	1,234.11	1,010.86	3.83	956.51	3.11	40.38	16.12	13.07
Department of the Lakes	1,620.74	1,317.78	4.44	908.00	2.78	89.22	23.22	14.33
Department of the Missouri	1,305.64	827.68	5.94	956.48	4.60	38.91	13.03	9.98
Department of Dakota	1,193.68	922.45	8.57	955.34	7.22	37.44	14.71	12.33
Department of Texas	1,208.02	901.40	7.95	962.92	6.62	30.46	13.95	11.55
Department of the Colorado	1,308.86	967.32	4.03	967.63	3.10	29.27	14.05	10.74
Department of California	1,207.98	758.76	4.21	961.95	3.97	34.08	11.23	9.29
Department of the Columbia (excluding Alaska)	1,018.60	829.06	3.86	942.01	3.80	34.08	13.28	13.04
General hospitals	....	....	....	....	......	....	....	....
Total	1,250.29	871.48	6.14	945.17	4.86	49.97	17.25	13.80
Alaska	944.97	655.74	9.37	961.15	10.03	28.82	11.24	11.90
The Philippines Division:								
Department of Luzon	1,615.44	1,303.06	4.48	974.85	3.00	22.15	17.10	10.59
Department of the Visayas	1,830.15	1,421.81	5.65	964.46	3.16	32.38	22.88	12.50
Department of Mindanao	1,415.70	1,129.81	13.74	974.50	9.81	15.69	18.64	13.17
General hospitals and inter-island transports	....	....	....	....	......	....	....	....
Total	1,599.72	1,277.93	8.14	971.86	5.17	22.97	21.64	13.53
China	1,590.91	109.09	9.09	966.85	5.52	27.63	20.43	12.84
Hawaii	1,000.00	613.64	....	975.76	......	24.24	14.50	14.50
Army transports	717.11	575.94	3.21	970.99	4.84	24.17	12.71	17.72
The United States Army	1,295.97	936.98	6.28	952.17	4.98	42.85	17.86	13.78

INTERNATIONAL TABLE III.—*Movement of sick, by arms of service.*

Arms of service.	Absolute numbers.						Proportionate numbers.				
		Sick Admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
	Mean strength.	Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.[a]	Fit for duty (recovered).	Deaths.
Infantry	22,123	27,730	21,156	27,910	26,492	168	1,253.45	956.29	7.38	949.19	6.02
Cavalry	11,460	16,777	11,603	16,685	16,060	75	1,463.96	1,012.48	6.36	962.54	4.49
Coast Artillery	11,071	14,094	10,321	14,232	13,657	45	1,273.06	932.26	3.95	959.60	3.16
Field Artillery	3,230	4,747	3,366	4,723	4,573	20	1,469.66	1,042.10	6.02	968.24	4.23
Engineers	1,095	1,563	890	1,611	1,525	9	1,427.40	812.79	7.99	946.61	5.59
Ordnance	647	520	170	522	505	3	803.71	262.75	4.50	967.43	5.75
Signal Corps	1,119	1,029	567	1,027	981	8	919.57	506.70	6.95	955.21	7.79
Hospital Corps	2,970	2,323	1,755	2,339	2,177	27	782.15	590.91	8.83	930.74	11.54
Others	3,186	4,959	3,487	4,868	4,412	13	1,556.50	1,094.48	3.96	906.33	2.67
Total	56,901	73,742	53,315	73,917	70,382	368	1,295.97	936.98	6.28	952.17	4.98

[a] Ratios for deaths based on mean strength, "present and absent," total 58,556.

INTERNATIONAL TABLE IV.—*Movement of sick, by months.*

Month.	Absolute numbers.						Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
	Mean strength.	Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.[a]	Fit for duty (recovered).	Deaths.
January	57,398	6,779	4,650	6,626	6,286	34	118.11	81.01	0.58	948.69	5.13
February	56,467	5,801	4,094	6,107	5,806	25	102.73	72.50	.43	950.71	4.09
March	57,209	5,864	4,205	5,919	5,622	29	102.50	73.50	.50	949.82	4.90
April	56,901	5,977	4,372	6,030	5,748	23	105.04	76.83	.39	953.24	3.81
May	56,889	5,953	4,303	6,142	5,837	41	104.64	75.62	.70	950.34	6.88
June	57,803	5,688	4,100	5,704	5,402	29	98.40	70.93	.51	947.05	5.08
July	55,557	6,546	4,803	6,242	5,956	41	117.83	86.45	.70	954.18	6.57
August	56,940	7,133	5,290	6,835	6,561	34	125.27	92.90	.58	959.91	4.97
September	56,502	6,054	4,426	6,194	5,876	26	107.15	78.33	.44	948.66	4.20
October	56,986	6,000	4,387	6,175	5,852	41	105.29	76.98	.70	947.69	6.64
November	56,660	5,721	4,153	5,808	5,550	19	100.97	73.30	.32	955.58	3.27
December	57,500	6,226	4,532	6,135	5,886	26	108.28	78.82	.44	959.41	4.24
Total	56,901	73,742	53,315	73,917	70,382	368	1,295.97	936.98	6.28	952.17	4.98

[a] Ratios for deaths based on mean strength, "present and absent;" total, 58,556.

INTERNATIONAL TABLE V.—*Movement of sick in the larger garrisons.*

Garrisons.	Mean strength.	Total admissions.		Admissions to hospital		Deaths.	
		Absolute number.	Per 1,000 mean strength.	Absolute number.	Per 1,000 mean strength.	Absolute number.	Per 1,000 mean strength.
Plattsburg Barracks, N. Y	734	580	790.19	508	692.10	2	2.72
Fort Robinson, Nebr	510	429	841.17	224	439.22	4	7.84
Presidio of Monterey, Cal	822	713	867.40	599	728.71	6	7.30
Fort Riley, Kans	1,658	1,529	922.20	1,114	671.89	9	5.43
Fort Douglas, Utah	517	563	1,088.97	416	804.64	4	7.74
Fort Leavenworth, Kans	1,953	2,208	1,130.57	1,506	771.12	12	6.14
Fort Logan, Colo	659	765	1,160.85	719	1,091.05	2	3.03
Vancouver Barracks, Wash	835	971	1,162.87	943	1,129.34	5	5.99
Fort Niobrara, Nebr	528	633	1,198.87	349	660.98	3	5.68
Presidio of San Francisco, Cal. (post)	1,282	1,547	1,206.71	862	672.39	5	3.90
Fort Slocum, N. Y	670	834	1,244.78	649	968.66	3	4.48
Fort Sheridan, Ill	778	985	1,266.07	628	807.20	4	5.14
Fort Sam Houston, Tex	588	773	1,314.63	524	891.16	6	10.20
Fort McPherson, Ga	545	734	1,346.78	574	1,053.21	1	1.83
Fort Snelling, Minn	884	1,206	1,364.25	978	1,106.33	6	6.79
Fort Assinniboine, Mont	540	751	1,390.74	510	944.44	7	12.96
Fort Oglethorpe, Ga	535	780	1,457.94	772	1,442.99	2	3.74
Fort Crook, Nebr	534	817	1,529.96	469	878.28	3	5.62
Fort D. A. Russell, Wyo	652	1,007	1,544.48	731	1,121.17	11	16.87
Fort Monroe, Va	811	1,293	1,594.32	862	1,062.89	2	2.47
Fort Myer, Va	625	1,155	1,848.00	821	1,313.60	1	1.60
Fort Ethan Allen, Vt	945	1,761	1,863.49	455	481.48	3	3.17
Columbus Barracks, Ohio	889	2,342	2,634.42	2,206	2,481.44	6	6.75
Jefferson Barracks, Mo	709	1,973	2,782.79	847	1,194.64	1	1.41
Fort Wm. H. Seward, Alaska	226	190	840.71	147	650.44	1	4.42
Honolulu, Hawaii	176	176	1,000.00	108	613.64	....	....
Malabang, Mindanao, P. I	534	646	1,209.74	565	1,058.05	7	13.11
Camp Overton, Mindanao, P. I	352	441	1,252.84	316	897.73	6	17.04
Camp Keithley, Mindanao, P. I	880	1,112	1,263.64	936	1,063.64	4	4.55
Camp Warwick, Cebu, P. I	203	258	1,270.93	169	832.51	....	....
Manila posts, Manila, P. I	1,102	1,545	1,402.00	1,219	1,106.17	1	.91
Camp Bumpus, Leyte, P. I	194	272	1,402.06	222	1,144.33	....	....
Zamboanga, Mindanao, P. I	242	346	1,429.75	317	1,309.92	3	12.40
Parang, Mindanao, P. I	203	296	1,458.13	282	1,389.16	1	4.93
Camp Wilhelm, Lucena, Luzon, P. I	204	311	1,524.51	290	1,421.57	2	9.85
Camp McGrath, Luzon, P. I	468	717	1,532.05	541	1,155.98	2	4.27
Fort Wm. McKinley, Luzon, P. I	1,291	2,030	1,572.42	1,859	1,439.97	7	5.42
Camp Jossman, Guimaras, P. I	561	966	1,721.93	884	1,575.76	5	8.91
Camp Stotsenburg, Luzon, P. I	702	1,212	1,726.49	1,175	1,673.79	3	4.27
Camp Connell, Samar, P. I	384	684	1,781.25	673	1,752.60	2	5.21
Camp Wallace, San Fernando, Luzon, P. I	277	523	1,888.08	479	1,729.24	2	7.22
Camp Downes, Leyte, P. I	191	361	1,890.05	329	1,722.51	....	....
Camp Daraga, Luzon, P. I	293	565	1,928.33	436	1,488.05	1	3.41
Camp Gregg, Luzon, P. I	147	290	1,972.79	230	1,564.63	1	6.80
Jolo, Jolo, P. I	478	1,152	2,410.04	945	1,976.99	5	10.46
San Francisco de Malabon, Luzon, P. I	108	263	2,435.18	7	64.81	3	27.78

INTERNATIONAL TABLE VI.—*Movement of sick according to most important diseases.*

			Absolute numbers.									Proportionate numbers.					
			Remaining at close of year 1904.	Admitted in 1905.	Total remaining and admitted.	Disposed of in 1905.						Per 1,000 of mean strength.		Per 1,000 disposed of.			Average days of treatment.
Nos. of national nomenclature.[a]	Nos. of international nomenclature.	Diseases of the international nosological table.				Fit for duty.	Died.	Otherwise.	Total.	Remaining at close of 1905.	Total days sick in 1905.	Admissions.	Deaths.	Fit for duty.	Died.	Otherwise.	
83 and 84	1	Alkoholismus acutus, including delirium tremens	14	1,578	1,592	1,516	10	50	1,576	16	6,197	27.73	0.17	961.92	6.35	31.73	3.9
173	2	Bronchitis acuta	50	2,925	2,975	2,891	1	34	2,926	49	16,319	51.40	.02	988.04	.34	11.62	5.6
18	3	Cholera Asiatica	......	9	9	7	2	......	9	......	149	.16	.03	777.78	222.22	......	16.6
19	4	Cholera nostras	......	20	20	20	......	......	20	......	51	.35	......	1,000.00	......	......	2.5
15	5	Diphtheria et croup	3	34	37	25	......	2	27	10	760	.60	......	925.93	......	74.07	22.3
20 to 22	6	Dysenteria	138	964	1,102	947	12	69	1,028	74	37,078	16.93	.20	921.21	11.67	67.12	38.5
26	7	Erysipelas	2	46	48	42	......	3	45	3	841	.81	......	933.33	......	66.67	18.3
4 and 6	8	Febris intermittens (malaria)[b]	63	4,603	4,666	4,476	1	83	4,560	106	31,698	80.89	.02	981.58	.22	18.20	6.9
3	9	Febris recurrens	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
60 to 66	10	Gonorrhea	443	7,471	7,914	7,081	1	398	7,480	434	149,643	131.30	.02	946.66	.13	53.21	20.0
210 and 211	11	Hernia	36	325	361	231	......	90	321	40	14,211	5.71	......	719.63	......	280.37	43.7
16	12	Influenza	35	1,696	1,731	1,693	1	21	1,715	16	9,785	29.80	.02	987.18	.58	12.24	5.8
316	13	Insolatio (Hitzschlag, coup de chaleur)	......	10	10	10	......	......	10	......	63	.18	......	1,000.00	......	......	6.3
27	14	Meningitis cerebro-spinalis epidemica	......	10	10	3	7	......	10	......	147	.18	.12	300.00	700.00	......	14.7
12	15	Morbilli	8	297	305	278	1	14	293	12	5,448	5.22	.02	948.81	3.41	47.78	18.3
30	16	Parotitis epidemica	2	675	677	598	......	30	628	49	10,425	11.86	......	952.23	......	47.77	15.4
177	17	Pleuritis	11	164	175	154	......	11	165	10	3,575	2.88	......	933.33	......	66.67	21.8
176	18	Pneumonia crouposa sive lobaris	24	154	178	140	19	8	167	11	5,215	2.71	.32	838.32	113.77	47.91	33.9
73 and 74	19	Rheumatismus articulorum	76	943	1,019	892	......	76	968	51	27,417	16.57	......	921.49	......	78.51	29.1
13	20	Scarlatina	......	8	8	6	......	1	7	1	211	.14	......	857.14	......	142.86	26.4
76	21	Scorbutus	......	2	2	1	......	......	1	1	67	.04	......	1,000.00	......	......	33.5
54 to 57	22	Syphilis	191	1,954	2,145	1,788	1	212	2,001	144	65,351	34.34	.02	893.55	.50	105.95	33.4
112	23	Trachoma	4	22	26	16	......	5	21	5	1,824	.39	......	761.91	......	238.09	82.9
47 and 48	24	Tuberculosis pulmonum[c]	165	240	405	19	33	198	250	155	55,561	4.22	.56	76.00	132.00	792.00	231.5
49 to 53	25	Tuberculosis ceterorum organorum	5	40	45	21	7	10	38	7	3,553	.71	.12	552.63	184.21	263.16	88.8
1	26	Typhus abdominalis	45	193	238	194	17	11	222	16	14,044	3.39	.29	873.87	76.58	49.55	72.8
2	27	Typhus exanthematicus	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
58 and 59	28	Ulcus molle (including adenitis venerea)	120	1,894	2,014	1,757	......	108	1,865	149	42,370	33.28	......	942.99	......	57.91	22.4
11	29	Variola	......	11	11	7	......	......	7	4	356	.19	......	1,000.00	......	......	32.4

132 to 136	30	Morbi auris	26	536	562	467	.....	65	532	30	9,553	9.42	......	877.82	....	122.18	17.8
137 to 139	31	Morbi cordis[d]	25	221	246	99	5	120	224	22	9,110	3.88	.09	441.96	22.32	535.72	41.2
258, 260-266, 268, 270, and 271..	32	Morbi cutis[e]	30	1,440	1,470	1,397	.....	44	1,411	29	13,816	25.31	......	969.47	....	30.53	9.6
100	33	Morbi mentis[f]	17	92	109	11	.....	81	92	17	4,844	1.62	......	119.56	....	880.44	52.6
111 to 131	34	Morbi oculi	54	1,185	1,239	1,024	.....	162	1,186	53	24,453	20.83	......	863.40	....	136.60	20.6
229 to 248	35	Morbi systemat. urin. et sexual (excluding venerie et syphilis)	46	926	972	863	7	63	933	39	17,504	16.27	.12	924.97	7.50	67.53	18.9

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[a] Numbers to nomenclature used in 1905.

[b] Malarial fever, intermittent only.

[c] Includes tuberculosis of the lungs and larynx.

[d] Includes pericarditis and endocarditis.

[e] Includes all diseases of the skin proper.

[f] Includes insanity only.

INTERNATIONAL TABLE VII.—*Most important diseases, by arms of service.*

Nos. of national nomenclature.[a]	Nos. of international nomenclature.	Diseases of the international nosological table.	Absolute numbers—Admissions by arms of service.									Proportionate numbers—Admissions per 1,000 of mean strength.								
			Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.
83 and 84	1	Alkoholismus acutus, including delirium tremens	667	184	515	34	31	11	32	58	46	30.15	16.06	46.52	10.53	28.31	17.00	28.60	19.53	14.44
173	2	Bronchitis acuta	875	740	652	151	59	55	38	98	257	39.55	64.58	58.89	46.75	53.88	85.01	33.96	33.00	80.65
18	3	Cholera Asiatica	3	3	......	1	1	....	1	.....	.....	.14	.26	....	.31	.91	....	.89	....	....
19	4	Cholera nostras	5	2	6	6	.....	....	....	.....	1	.23	.17	.54	1.86	....	....	....	....	.31
15	5	Diphtheria et croup	21	4	1	3	1	....	....	4	.....	.95	.35	.09	.93	.91	....	....	1.35	....
20 to 22	6	Dysenteria	658	122	33	12	37	2	13	79	8	29.74	10.64	2.98	3.72	33.79	3.09	11.62	26.60	2.51
26	7	Erysipelas	27	3	5	2	1	3	....	2	3	1.22	.26	.45	.62	.91	4.64	....	.67	.94
4 and 6	8	Febris intermittens (malaria)[b]	2,019	1,273	383	414	68	12	50	151	233	91.26	111.08	34.59	128.17	62.10	18.55	44.68	50.84	73.13
3	9	Febris recurrens	......	......	......	.....	.....	....	....	.....	.....	....	....	....	....	....	....	....	....	....
60 to 66	10	Gonorrhea	3,298	1,649	1,204	465	118	1	103	187	446	149.08	143.89	108.75	143.96	107.76	1.55	92.05	62.96	139.99
210 and 211	11	Hernia	97	47	42	12	4	2	2	18	101	4.38	4.10	3.79	3.72	3.65	3.09	1.79	6.06	31.70
16	12	Influenza	501	244	572	76	46	55	27	82	93	22.65	21.29	51.67	23.53	42.01	85.01	24.13	27.61	29.19
316	13	Insolatio (Hitzschlag, coup de chaleur)	1	6	2	.....	.....	....	1	.....	.....	.05	.52	.18	....	....	....	.89	....	....
27	14	Meningitis cerebro-spinalis epidemica	5	......	1	1	.....	....	....	1	2	.23	....	.09	.31	....	....	....	.34	.63
12	15	Morbilli	52	78	99	29	1	....	10	10	18	2.35	6.81	8.94	8.98	.91	....	8.94	3.37	5.65
30	16	Parotitis epidemica	216	139	143	46	23	1	8	17	82	9.76	12.13	12.92	14.24	21.00	1.55	7.15	5.72	25.74
177	17	Pleuritis	56	28	37	6	7	3	9	13	5	2.53	2.44	3.34	1.86	6.39	4.64	8.04	4.38	1.57
176	18	Pneumonia crouposa sive lobaris	61	34	27	13	1	1	3	5	9	2.76	2.97	2.44	4.02	.91	1.55	2.68	1.68	2.82
73 and 74	19	Rheumatismus articulorum	425	171	176	58	22	14	12	40	25	19.21	14.92	15.90	17.96	20.09	21.64	10.72	13.47	7.85
13	20	Scarlatina	4	......	......	.....	1	....	....	1	2	.18	....	....	....	.91	....	....	.34	.63
76	21	Scorbutus	......	......	1	.....	.....	....	1	.....	.....	....	....	.09	....	....	....	.89	....	....
54 to 57	22	Syphilis	936	409	333	97	42	2	22	46	67	42.31	35.69	30.08	30.03	38.36	3.09	19.66	15.49	21.03
112	23	Trachoma	7	2	8	1	2	....	....	.....	2	.32	.17	.72	.31	1.83	....	....	....	.63
47 and 48	24	Tuberculosis pulmonum[c]	106	38	44	8	2	1	4	26	11	4.79	3.32	3.97	2.48	1.83	1.55	3.57	8.75	3.45
49 to 53	25	Tuberculosis ceterorum organorum	15	3	8	1	.....	5	5	3	.....	.68	.26	.72	.31	....	7.73	4.47	1.01	....
1	26	Typhus abdominalis	67	41	24	10	12	2	6	14	17	3.03	3.58	2.17	3.10	10.96	3.09	5.36	4.71	5.34
2	27	Typhus exanthematicus	......	......	......	.....	.....	....	....	.....	.....	....	....	....	....	....	....	....	....	....
58 and 59	28	Ulcus molle (including adenitis venerea)	868	477	295	102	38	1	24	39	50	39.23	41.62	26.65	31.58	34.70	1.55	21.45	13.13	15.69

11	29	Variola	3	7	.....	.....	.....	....	....	1	.....	.14	.61	....	....	....	....	....	.34	....
132 to 136	30	Morbi auris	178	107	111	47	8	6	5	22	52	8.05	9.34	10.03	14.55	7.31	9.27	4.47	7.41	16.32
137 to 139	31	Morbi cordis[d]	51	18	30	7	.....	2	4	6	103	2.31	1.57	2.71	2.17	....	3.09	3.57	2.02	32.33
258, 260-266, 268, 270, and 271	32	Morbi cutis[e]	438	291	297	129	20	8	19	29	206	19.80	25.66	26.83	39.94	18.26	12.36	16.98	9.76	64.66
100	33	Morbi mentis[f]	38	19	21	2	3	....	1	5	3	1.72	1.66	1.90	.62	2.74	....	.89	1.68	.94
111 to 131	34	Morbi oculi	388	178	181	60	19	6	21	30	302	17.54	15.53	16.35	18.58	17.35	9.27	18.77	10.10	94.79
229 to 248	35	Morbi systemat. urin. et sexual (excluding venerie et syphilis)	348	228	185	45	18	6	7	46	43	15.73	19.89	16.71	13.93	16.44	9.27	6.26	15.49	13.50

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[a] Numbers to nomenclature used in 1905.

[b] Malarial fever, intermittent only.

[c] Includes tuberculosis of lungs and larynx.

[d] Includes pericarditis and endocarditis.

[e] Includes all diseases of the skin proper.

[f] Includes insanity only.

INTERNATIONAL TABLE VIII.—*Most important diseases, by months.*

Nos. of national nomenclature.[a]	Nos. of international nomenclature.	Diseases of the international nosological table.	Admissions by months.											
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
83 and 84	1	Alkoholismus acutus, including delirium tremens	134	118	133	124	156	122	123	135	107	112	154	160
173	2	Bronchitis acuta	465	380	294	235	168	144	143	189	172	219	231	285
18	3	Cholera Asiatica								7			1	1
19	4	Cholera nostras		1			2	5	9	2		1		
15	5	Diphtheria et croup	3	3	6	2	4						6	10
20 to 22	6	Dysenteria	84	72	85	86	70	85	110	86	99	61	71	55
26	7	Erysipelas	9	3	10	3	4	4	2		2	4	1	4
4 and 6	8	Febris intermittens (malaria)[b]	265	164	195	402	113	474	527	596	534	396	275	362
3	9	Febris recurrens												
60 to 66	10	Gonorrhea	568	445	546	602	637	616	773	722	614	630	651	667
210 and 211	11	Hernia	22	31	28	18	22	26	29	37	24	34	27	27
16	12	Influenza	507	524	279	75	70	29	23	15	19	47	50	58
316	13	Insolatio (Hitzschlag, coup de chaleur)		1		2		2	3	1		1		
27	14	Menengitis cerebro-spinalis epidemica	4	1	3	1		1						
12	15	Morbilli	22	52	38	46	53	26	3	9	11	6	15	16
30	16	Parotitis epidemica	16	31	65	103	65	40	25	61	70	42	55	102
177	17	Pleuritis	17	10	13	11	16	11	8	11	13	20	15	19
176	18	Pneumonia crouposa sive lobaris	28	28	19	14	10	5	9	6	7	5	11	12
73 and 74	19	Rheumatismus articulorum	105	86	109	107	72	61	68	73	80	59	55	68
13	20	Scarlatina	2		1	1	2						1	1
76	21	Scorbutus	1						1					
54 to 57	22	Syphilis	198	158	155	143	173	149	161	206	151	183	126	151
112	23	Trachoma	1	3	2	1	1	1	3	3	1	3	3	
47 and 48	24	Tuberculosis pulmonum[c]	19	15	31	17	25	19	28	20	13	17	18	18
49 to 53	25	Tuberculosis ceterorum organorum	3	3	3	9	1	5	2	4	3	1	4	2
1	26	Typhus abdominalis	9	11	7	7	8	15	31	44	31	17	9	4
2	27	Typhus exanthematicus												
58 and 59	28	Ulcus molle (including adenitis venerea)	172	101	126	150	154	151	192	168	151	175	177	177
11	29	Variola	2	2	1	1	1						1	3
132 to 136	30	Morbi auris	59	47	46	35	33	44	45	43	35	46	62	41
137 to 139	31	Morbi cordis[d]	24	9	18	12	17	20	21	33	18	16	14	19
258, 260–266, 268, 270, and 271	32	Morbi cutis[e]	125	103	115	121	125	116	157	152	114	92	128	89
100	33	Morbi mentis[f]	12	7	8	8	8	8	6	8	4	8	7	8
111 to 131	34	Morbi oculi	104	116	107	92	119	112	99	85	98	77	100	76
229 to 248	35	Morbi systemat. urin. et sexual (excluding venerie et syphilis)	81	85	74	59	66	85	74	82	66	100	81	73

[a] Numbers to nomenclature used in 1905.
[b] Malarial fever, intermittent only.
[c] Includes tuberculosis of the lungs and larynx.
[d] Includes pericarditis and endocarditis.
[e] Includes all diseases of the skin proper.
[f] Includes insanity only.

INTERNATIONAL TABLE IX.—*Deaths by rank, by length of service, and by age.*

Cause of death.		Total number of deaths (enlisted men).		Deaths by rank and length of service.				Deaths by age.					
		Absolute number.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and beyond.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Deaths from sickness..	Soldiers present with troops	154	2.63	34	34	15	71	1	63	40	21	13	16
	Soldiers absent from troops	52	.89	13	6	8	25	1	18	14	9	2	8
Accidental deaths....	Soldiers present with troops	125	2.13	18	28	26	53	2	62	29	17	7	8
	Soldiers absent from troops	6	.10	....	1	2	3	....	3	2	1	....	....
Suicides....	Soldiers present with troops	27	.46	5	5	2	15	....	11	6	6	1	3
	Soldiers absent from troops	4	.07	1	.....	1	2	....	1	1	1	....	1
Grand total		368	6.28	71	74	54	169	4	158	92	55	23	36

INTERNATIONAL TABLE X.—*Discharges from the Army for physical disability, temporary or permanent, by rank, by length of service, and by age.*

Cause of discharge.	Total discharges (enlisted men).		Rank and length of service				Age.					
	Absolute number	Per 1,000 of mean strength	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and beyond.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Physical disability existent prior to enlistment	642	10.96	6	546	58	32	56	421	129	32	3	1
Physical disability incident to service	578	9.87	72	125	110	271	6	272	158	75	34	33
Physical disability not incident to service	244	4.17	8	85	84	67	3	148	56	28	6	3
Grand total	1,464	25.00	86	756	252	370	65	841	343	135	43	37

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Report of the

Surgeon-General of the Army

To the Secretary of War

For the Fiscal Year
Ending June 30

1907

Washington : Government Printing Office : 1907

Report of the

Surgeon-General of the Army

To the Secretary of War

For the Fiscal Year
Ending June 30

1907

Washington : Government Printing Office : 1907

LETTER OF SUBMITTAL.

War Department,
Office of the Surgeon-General,
Washington, July 24, 1907.

Sir: I have the honor to submit herewith a report upon the work of the Medical Department of the Army, beginning with a financial statement for the fiscal year ending June 30, 1907, and including a study of the health and sanitary conditions of the Army for the calendar year 1906.

Very respectfully,

R. M. O'Reilly,
Surgeon-General, U. S. Army.

Hon. William H. Taft,
Secretary of War.

TABLE OF CONTENTS.

Page.

Financial statement 7
Health and sanitary condition of the whole Army, American troops, white and colored 13
  Sickness and mortality 13
  Influence of rank 21
  Influence of arm of service 21
  Comparison with foreign armies 22
  Killed and wounded in action 30
  Surgical operations 32
  Recruiting 32
  Sanitation 40
Board for the study of tropical diseases 40
Health of troops in the United States, continental, exclusive of Alaska 41
  Sickness and mortality 41
  Prevalence of special diseases 43
    Typhoid fever 43
    Undetermined fevers 46
    Malarial fevers 49
    Yellow fever 49
    Eruptive fevers 49
    Dysentery 49
    Cerebro-spinal meningitis 49
    Tuberculosis 51
    Venereal diseases 51
    Leprosy 51
    Alcoholism 51
    Insanity 51
    Pneumonia 55
    Diarrhea and enteritis 55
    Hepatic abscess 55
  Influence of station 55
  Influence of age and length of service 63
  Influence of season 65
  Influence of race 66
  Discharges for disability 67
  Camps of instruction 69
  Sanitation 70
    Department of the East 72
    Department of Texas 73
    Department of the Lakes 74
    Department of California 74
    Department of Dakota 74
    Department of the Colorado 75
    Department of the Missouri 75
    Department of the Gulf 75
    Department of the Columbia, exclusive of Alaska 76
Health of troops in Alaska 77
  Sickness and mortality 77
  Influence of season 77
  Influence of station 78
  Causes of death 79
  Invaliding home 79
  Prevalence of special diseases 80
  Sanitation 80
Health of troops in Cuba 80
  Sickness and mortality 80
  Prevalence of special diseases 81
  Sanitation 82

Page.

Health of troops in Porto Rico 82
    Sickness and mortality 82
    Influence of season 83
    Relative prevalence of special diseases among Porto Rican and Filipino troops 83
    Recruiting 83
Health of troops in Hawaii 87
    Sickness and mortality 87
Health of troops in the Philippine Islands 87
    American troops 87
        Sickness and mortality 87
        Prevalence of special diseases 90
            Typhoid fever 90
            Undetermined fevers 90
            Malarial fevers 94
            Measles 94
            Asiatic cholera 94
            Dysentery 94
            Dengue 94
            Tuberculosis 94
            Venereal diseases 94
            Alcoholism 94
            Insanity 94
            Filariasis 94
            Yaws 94
            Diarrhea and enteritis 94
        Prevalence of sickness by departments and islands 94
        Influence of season 99
        Influence of age and length of service 100
        Discharges for disability 103
        Invaliding home 104
    Filipino troops 105
        Sickness and mortality 105
        Discharges for disability 106
        Influence of season 107
        Killed and wounded in action 107
        Surgical operations 108
        Recruiting 109
    Sanitation 113
        Department of Luzon 113
        Department of Mindanao 114
        Department of the Visayas 116
    Prevalence of disease by races 116
Health of troops on transports 117
Medical officers 117
Contract surgeons 119
Contract dental surgeons 120
Medal of honor, presentation of 121
Army medical school 121
Hospital corps 123
Nurse corps (female) 125

The general hospitals:

    United States Army General Hospital, Presidio of San Francisco, Cal 126
    United States Army General Hospital, Fort Bayard, N. Mex 127
    Army and Navy General Hospital, Hot Springs, Ark 128
    United States Army General Hospital, Washington Barracks, D. C 128
Providence Hospital, Washington, D. C 129
Hospital construction and repair 129
Medical and hospital supplies 130
The Army Medical Museum 132
Library of the Surgeon-General's Office 136
Artificial limbs and apparatus 136
Appliances and trusses 137
Surgical operations, table of 137
Statistical tables 146
International statistical tables 173

REPORT OF THE SURGEON-GENERAL OF THE ARMY

FINANCIAL STATEMENT, 1907.[a] [b]

Medical and hospital department, 1907.

Appropriated by act approved June 12, 1906		$623,000.00
Refundments during the year (including transfer by disbursing officer from "Medical and hospital department, 1906," to adjust appropriations, $152.62)		171.91
Total to be accounted for		623,171.91
Disbursed during the year:[a]		
Expenses of medical supply depots	$760.14	
Medical supplies	384,631.90	
Medical attendance and medicines (except at recruiting stations)	14,910.42	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	8,378.68	
Pay of nurses	2,214.00	
Pay of other employees	138,949.01	
Washing of hospital linen	22,700.13	
Expressage	263.63	
Notary fees	48.48	
Gas and electricity for medical apparatus	71.32	
		572,927.71
Balances on hand June 30, 1907 (except Manila, May 31):[a]		
In United States Treasury and in transit thereto	9,588.06	
In hands of disbursing officers—		
New York City	20,431.65	
Washington, D. C	1,548.73	
St. Louis, Mo	6,493.51	
San Francisco, Cal	2,243.98	
Havana, Cuba	765.57	
Manila, P. I. (May 31)[a]	9,172.70	
		50,244.20
Total accounted for		623,171.91

Medical and hospital department, 1906.

Balance on hand July 1, 1906, act of March 2, 1905		$120,635.33
Refundments on account of supplies transferred:		
To Isthmian Canal Commission	$18,006.57	
To Bureau of Immigration	648.55	
To Marine Corps	88.56	
To States and Territories for use of organized militia	117.94	
Refundment on account of supplies issued for the relief of sufferers from earthquake and conflagration on the Pacific coast	11,317.91	
Other refundments during the year	643.67	
		30,823.20
Total to be accounted for		151,458.53

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[a] Complete, except "Medical and hospital department, 1907," which includes disbursements at Manila, P. I., only to May 31, 1907, and gives the balance on hand at that station on that date, instead of on June 30.

[b] The disbursements in this statement include settlements with public creditors made by the accounting officers of the Treasury, and charged by them to these appropriations.

Disbursed during the year:		
Expenses of medical supply depots	$285.57	
Medical supplies	132,875.63	
Medical attendance and medicines (except at recruiting stations)	2,342.43	
Medical expenses of recruiting (including medical attendance and medicines at recruiting stations)	834.55	
Pay of nurses	23.33	
Pay of other employees	2,233.20	
Washing of hospital linen	1,989.39	
Expressage	34.73	
Notary fees	.72	
Gas and electricity for medical apparatus	17.25	
		$140,636.80
Transfer by disbursing officer to "Medical and hospital department, 1907," to adjust appropriations		152.62
Transfer by Treasury settlement to "Miscellaneous receipts," being proceeds of sale to St. Paul's Hospital, Manila, P. I., erroneously credited to this appropriation		3,917.18
Balances on hand June 30, 1907:		
In United States Treasury	$5,408.79	
In hands of disbursing officers—		
New York City	187.70	
St. Louis, Mo	1,155.44	
		6,751.93
Total accounted for		151,458.53

Medical and hospital department, 1905.

Balance on hand July 1, 1906, act of April 23, 1904		$516.34
Refundments during the year ($15 on account of erroneous payment for services, and $58.05, the amount of a disbursing officer's depositary balance, held to meet outstanding checks, which was covered into the appropriation upon settlement by the accounting officers with the owner of the checks, the latter having been lost)		73.05
Total to be accounted for		589.39
Disbursed during the year:		
Medical attendance, not at recruiting stations	$150.00	
Treasury settlement with owner of lost checks mentioned above (the payments represented by the checks having been classified heretofore)	58.05	
		208.05
Balance in United States Treasury June 30, 1907, for surplus fund [a]		381.34
Total accounted for		589.39

Medical and hospital department, certified claims.

Appropriated by act approved March 4, 1907	$301.47
Disbursed during the year	301.47

Report of army board on origin and spread of typhoid fever, 1903–4.

Balance on hand July 1, 1906, act of March 3, 1903	$546.56
Balance in United States Treasury June 30, 1907, for surplus fund [a]	546.56

Judgments, Court of Claims (War).

Appropriated by act approved June 30, 1906, on account of claims arising under the Medical Department of the Army	$242.00
Disbursed during the year	242.00

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[a] At date of this compilation, July 16, 1907, the surplus-fund warrant for June 30, 1907, has not been received for note in the Surgeon-General's Office.

Replacing medical supplies, 1907–8 (act June 12, 1906—34 Stat. L., 256).

Amounts accruing to this fund:		
A. On account of supplies transferred—		
To Bureau of Immigration	$709.51	
To Bureau of Forestry	85.00	
To Bureau of Education	6.50	
To Navy and Marine Corps	1,574.22	
To Quartermaster's Department, U. S. Army	31.82	
To Engineer Department, U. S. Army	49.92	
To Isthmian Canal Commission	21,862.99	
To post exchanges	35.00	
To States and Territories for use of organized militia	24,951.14	
		$49,306.10
B. On account of supplies sold—		
To States and Territories for use of organized militia	$357.38	
To civil government of the Philippine Islands	176.83	
To civilian employees and civilians	1,731.11	
		2,265.32
C. On account of supplies issued for relief of sufferers from earthquake and conflagration on the Pacific coast		200.10
D. On account of collections from carriers and others for medical property lost or destroyed		310.89
Total to be accounted for		52,082.41
Disbursed during the year		2,363.76
Treasury settlement reimbursing State for supplies returned		80.00
Transferred by Treasury settlement to adjust appropriations		2.60
Balances on hand June 30, 1907:		
In United States Treasury	$46,999.81	
In hands of disbursing officer, Washington, D. C.	2,636.24	
		49,636.05
Total accounted for		52,082.41

Replacing military stores destroyed at San Francisco, Cal., 1906–7.

Appropriated (for medical and hospital supplies) by act approved June 30, 1906		$100,000.00
Disbursed during the year:		
For medical supplies purchased during the fiscal year 1906	$49,966.87	
For medical supplies purchased during the fiscal year 1907	50,033.13	
		100,000.00

Artificial limbs, 1907.

Appropriated by act approved June 30, 1906		$145,000.00
Disbursed during the year		129,670.48
Balances on hand June 30, 1907:		
In United States Treasury	$4,466.52	
In hands of disbursing officer, Washington, D. C.	10,863.00	
		15,329.52

Artificial limbs, 1906.

Balance on hand July 1, 1906, act of March 3, 1905	$27,033.17
Disbursed during the year	8,615.65
Balance in United States Treasury June 30, 1907	18,417.52

Artificial limbs, 1905.

Balance on hand July 1, 1906, act of April 28, 1904		$8,492.91
Disbursed during the year		497.84
Balance in United States Treasury June 30, 1907, for surplus fund[a]		7,995.07

Artificial limbs, certified claims.

Appropriated by act approved June 30, 1906		$50.00
Appropriated by act approved March 4, 1907		.70
Total to be accounted for		50.70
Disbursed during the year		50.70

Appliances for disabled soldiers, 1907.

Appropriated by act approved June 30, 1906		$2,000.00
Disbursed during the year		1,169.79
Balances on hand June 30, 1907:		
In United States Treasury	$500.00	
In hands of disbursing officer, Washington, D. C	330.21	
		830.21

Appliances for disabled soldiers, 1906.

Balance on hand July 1, 1906, act of March 3, 1905		$743.31
Disbursed during the year		110.25
Balance in United States Treasury June 30, 1907		633.06

Appliances for disabled soldiers, 1905.

Balance on hand July 1, 1906, act of April 28, 1904		$757.60
Balance in United States Treasury June 30, 1907, for surplus fund[a]		757.60

Army Medical Museum, 1907.

Appropriated by act approved June 12, 1906		$4,000.00
Disbursed during the year		2,210.35
Balances on hand June 30, 1907:		
In United States Treasury	$1,500.00	
In hands of disbursing officer, Washington, D. C	289.65	
		1,789.65

Army Medical Museum, 1906.

Balance on hand July 1, 1906, act of March 2, 1905		$907.26
Disbursed during the year		873.67
Balance in United States Treasury June 30, 1907		33.59

Army Medical Museum, 1905.

Balance on hand July 1, 1906, act of April 23, 1904		$281.34
Balance in United States Treasury June 30, 1907, for surplus fund[a]		281.34

Library, Surgeon-General's Office, 1907.

Appropriated by act approved June 12, 1906		$10,000.00
Disbursed during the year		6,732.45
Balances on hand June 30, 1907:		
In United States Treasury	$2,000.00	
In hands of disbursing officer, Washington, D. C	1,267.55	
		3,267.55

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[a] At date of this compilation, July 16, 1907, the surplus fund warrant for June 30, 1907, has not been received for note in the Surgeon-General's Office.

Library, Surgeon-General's Office, 1906.

Balance on hand July 1, 1906, act of March 2, 1905	$3,403.71
Refundment during the year	.74
Total to be accounted for	3,404.45
Disbursed during the year	3,049.16
Balance in United States Treasury June 30, 1907	355.29
Total accounted for	3,404.45

Library, Surgeon-General's Office, 1905.

Balance on hand July 1, 1906, act of April 23, 1904	$324.19
Disbursed during the year	6.50
Balance in United States Treasury June 30, 1907, for surplus fund[a]	317.69

Furnishing trusses to disabled soldiers (secs. 1176, 1177, and 1178, R. S., and act of Mar. 3, 1879).

Balance on hand July 1, 1906	$1,741.53
Drawn during the year[b]	4,000.00
Total to be accounted for	5,741.53
Disbursed during the year	4,648.46
Balance June 30, 1907, in hands of disbursing officer, Washington, D. C.	1,093.07
Total accounted for	5,741.53

Relief of sufferers from earthquake and conflagration on the Pacific coast (joint resolutions of Apr. 19, 21, and 24, 1906.)

Balance on hand July 1, 1906, of allotments to the Medical Department made by the Secretary of War	$100,000.00
Disbursed during the year	11,518.01
Dropped from books of the Surgeon-General's Office to close account by transfer to the general account on the books of the office of the Secretary of War	88,481.99
Total accounted for	100,000.00

THE ARMY.

Troops were stationed in the United States proper, the Philippine Islands, Alaska, Cuba, and Hawaii during the past year, while native troops served in Porto Rico and the Philippines.

Statistics for the native troops—Porto Rican and Filipino—have been separately compiled, and when reference is made to the "Army" in this report the American Army proper, white and colored troops, is meant.

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[a] At date of this compilation, July 16, 1907, the surplus-fund warrant for June 30, 1907, has not been received for note in the Surgeon-General's Office.

[b] Appropriation warrant not yet received in Surgeon-General's Office this date, July 16, 1907.

As in many diseases, notably the venereal and malarial, the same soldier is often admitted several times on account of the same case of illness, the total number of admissions is necessarily considerably greater than the actual number of cases. The extent of this discrepancy, total 5.75 per cent, is shown in the following table, in which, however, only those diseases are shown where the difference between admissions and cases was 10 or more:

	Admissions and cases (men) compared.			
	Admissions.	Cases (men).	Excess of admissions over cases.	Percentage of admissions deducted to show cases.
Malarial fevers	6,077	5,524	553	9.10
Influenza	948	907	41	4.32
Dysentery	817	752	65	7.96
Dengue	1,144	1,119	25	2.19
Vaccinia	1,422	1,381	41	2.88
Syphilis	1,614	1,437	177	10.97
Chancroid	2,100	2,000	100	4.76
Gonorrhea and other venereal	7,035	6,405	630	8.96
Articular rheumatism:				
Acute	537	484	53	9.87
Subacute and chronic	366	320	46	12.57
Alcoholism	1,762	1,530	232	13.17
Epilepsy	112	83	29	25.89
Neuralgia	410	388	22	5.37
Conjunctivitis, acute	443	420	23	5.19
Errors of refraction	243	230	13	5.35
Diseases of the middle and internal ear	446	409	37	8.30
Organic diseases of the heart	153	140	13	8.50
Hemorrhoids	504	483	21	4.17
Adenitis, nonvenereal	437	415	22	5.03
Coryza	966	938	28	2.90
Acute bronchitis	2,201	2,105	96	4.36
Asthma	110	76	34	30.90
Diseases of the teeth, gums, and alveoli	649	630	19	2.93
Tonsillitis	2,655	2,541	114	4.29
Other diseases of the pharynx	835	819	16	1.92
Dyspepsia	1,612	1,544	68	4.22
Gastritis	746	710	36	4.83
Diarrhea, acute	4,003	3,785	218	5.45
Enteritis	838	813	25	2.98
Inguinal hernia	316	288	28	8.86
Constipation	1,161	1,129	32	2.76
Appendicitis and abscesses of the iliac fossæ	291	274	17	5.84
Orchitis	194	182	12	6.19
Furuncle	1,836	1,654	182	9.91
Acute abscess, phlegmon	1,079	1,035	44	4.08
Corns and warts	246	235	11	4.47
Ingrowing nails	263	245	18	6.84
Dermatitis from poisonous plants	270	251	19	7.04
Eczema and pemphigus	183	171	12	6.56
Scabies	265	252	13	4.91
Dhobie itch	382	356	26	6.81
Synovitis	172	156	16	9.30
Muscular rheumatism and myalgia	1,744	1,615	129	7.40
Congenital malformations and arrested development	181	168	13	7.18
Fevers, undetermined causation	442	432	10	2.26
Debility following operation and disease	188	176	12	6.38
Under observation, undiagnosed and unknown	358	347	11	3.07
Sprains	2,995	2,852	143	4.77
Strain, muscular	632	612	20	3.16
Abrasions and blisters	1,241	1,210	31	2.50
Contusions	2,745	2,632	113	4.12
Wounds, contused	537	520	17	3.17
Wounds, lacerated	1,065	1,027	38	3.57
Secondary results of injuries	324	293	31	9.57
Diseases and injuries, except as shown in detail	11,776	11,426	350	2.97
Total for disease	59,439	55,727	3,712	6.25
Total for injury	12,632	12,199	433	3.43
Grand total	72,071	67,926	4,145	5.75

HEALTH OF THE ARMY.

The mean enlisted strength of the Army, American troops, white and colored, for the year 1906, as reported on the monthly sick reports of the medical department, was 56,443, and on the returns to The Adjutant-General's office 58,572. The former represents the strength of the commands from which the sick returns were made and was used in calculating all ratios except those for deaths and discharges. As all deaths and discharges were reported, even of those absent from a command, the total strength as obtained from The Adjutant-General was used in calculating ratios pertaining to those headings.

The total number of admissions to sick report was 72,071, equal to an admission rate of 1,276.88, compared with 1,295.97 for the previous year and 1,833.11 for the septennial period 1898 to 1904.

There were 358 deaths from all causes, equivalent to a rate of 6.11 per 1,000 of strength, compared with 6.28 and 14.62 per 1,000, the corresponding rates for the previous year and the period from 1898 to 1904, respectively. The death rate for disease, 3.28, is the lowest attained since the occupation of tropical countries, and compares favorably with the rates prior to 1898.

For disability there were 1,523 men discharged, equal to a rate of 26 per 1,000 of strength, compared with 25 per 1,000 for the preceding year and 22.81 for the septennial period 1898 to 1904.

The constantly noneffective rate of 49.79 for the year was a slight increase compared with 48.93, the noneffective rate for the preceding year.

Venereal diseases were again by far the most important factor affecting the efficiency of the Army during the year. These diseases had the high admission and noneffective rates of 190.44 and 13.09, respectively, compared with 200.34 and 12.47, the corresponding rates for the previous year. The discharge rate, 3.06 against 3.41, was slightly less than during 1905, but the constantly noneffective rate was increased from 12.47 in 1905 to 13.09 during the past year. There were constantly on sick report for this class of diseases 739 men, equal to the loss for the entire year of the service of about 11 full companies of infantry.

After venereal diseases in order of admission were malarial fevers, the rates for which were materially increased compared with those for the previous year. The rates for admission and noneffectiveness rose from 88.85 and 1.85 per 1,000 in 1905 to 107.67 and 2.30, respectively, for 1906; the discharge and death rates remained practically the same as for the preceding year.

Next in order of importance were the diarrheal affections, the admission rate for which was 101.66 per 1,000 compared with 84.67 for the previous year; the noneffective rate for this class of diseases, however, was less than for 1905. Bronchitis, with an admission rate of 42.05 for the year, showed an improvement compared with the rate for the previous year. While the rate of admission for alcoholism of 31.22 per 1,000 was slightly in excess of the corresponding rate for the preceding year, the death rate from that cause was but a third of the mortality rate recorded in 1905. The noneffective rate compares favorably with that for the previous year.

Chart showing the admission rates for venereal diseases since 1897.

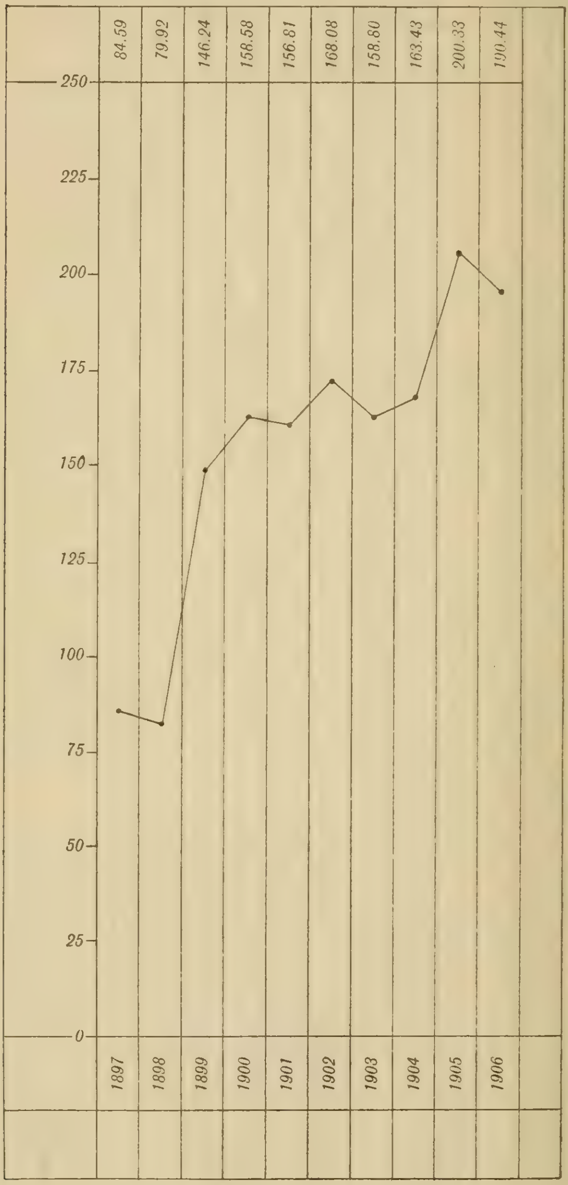
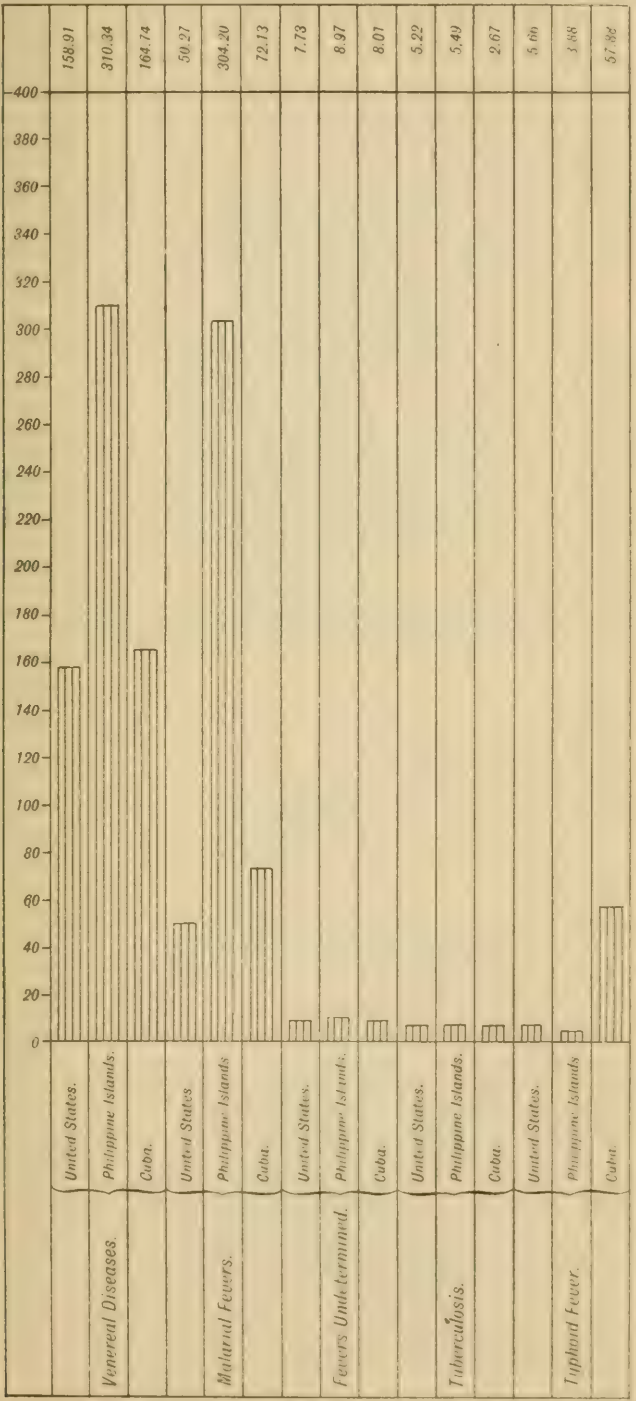


Chart showing the relative admission ratios per thousand of mean strength of certain special diseases in the United States proper, Philippine Islands, and Cuba.



As a cause of death tuberculosis again led, with a rate of 0.77 per 1,000, compared with 0.68, the corresponding rate for 1905. Typhoid fever was second. The mortality from this disease, however, showed to advantage compared with the two preceding years, the respective rates being 0.26, 0.29, and 0.33 per 1,000. Pneumonia, with a death rate of 0.24, showed a decided improvement, as the rate for the previous year was 0.32. The mortality rate for diarrheal diseases was not quite half as great as for 1905, the rates being 0.09 and 0.20, respectively.

Tuberculosis led as the cause of discharge for disability, with a rate of 3.11 for the year per 1,000 of strength of the army; venereal disease was second, with a rate of 3.06; defects of vision third, with a rate of 2.44, and organic disease of the heart fourth, with a rate of 1.35.

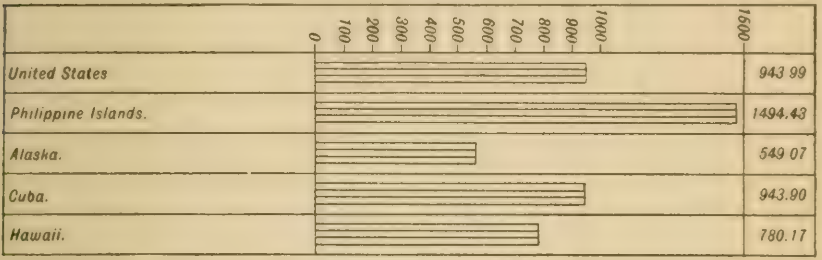
There were 229 admissions for gunshot wounds, with 65 deaths, and 2,953 admissions for wounds other than gunshot, with 12 deaths. Twenty-one enlisted men were killed in action and 78 wounded, of whom 5 died as a result of their wounds and 1 committed suicide. Of the killed 16 were by gunshot and 5 by bolo. There were 38 deaths from drowning, 10.6 per cent of the total deaths from all causes, a slight increase compared with the proportion of last year.

Thirty-nine suicides and 9 homicides were recorded during the year, compared with 31 and 20, respectively, the corresponding figures for 1905. There were 3 admissions for snake bite in the year 1906, with no fatal result.

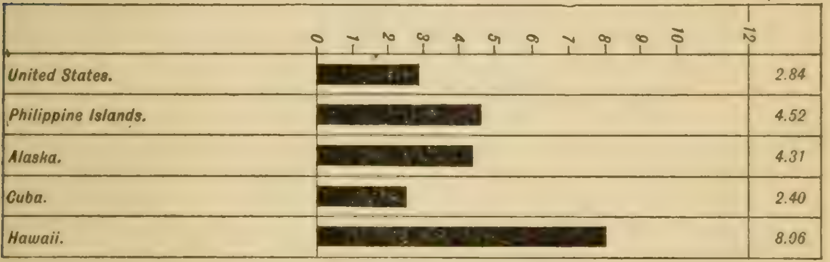
The following tables give a summary of the health of the Army by countries:

Chart showing the relative admission, death, discharge, and noneffective rates per thousand of mean strength for disease, by countries.

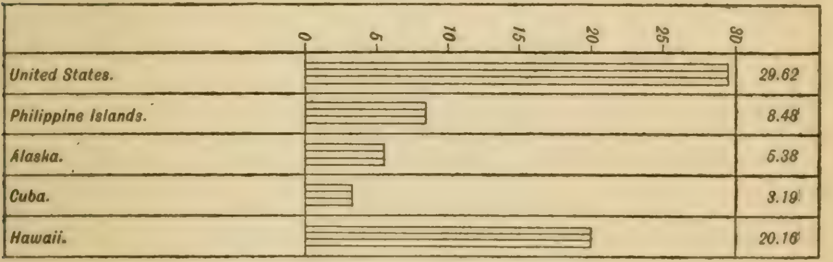
ADMISSIONS.



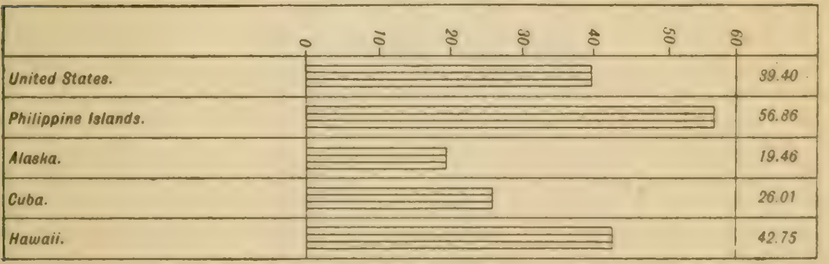
DEATHS.



DISCHARGES.



NONEFFECTIVE.



Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1906 compared with corresponding data for the year 1905, by countries—Absolute numbers.

American troops (enlisted).		Mean strength.	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Total losses.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly noneffective.
United States	1906	40,621	47,930	38,346	9,584	1,364	1,251	113	223	120	103	1,587	1,371	216	695,733	1,906.12
	1905	42,834	53,555	42,739	10,816	1,451	1,296	155	263	152	111	1,714	1,448	266	738,810	2,024.14
Alaska	1906	805	575	442	133	5	5	....	6	4	2	11	9	2	7,014	19.22
	1905	854	807	587	220	10	9	1	8	5	3	18	14	4	9,600	26.30
Cuba	1906	1,123	1,310	1,060	250	4	4	....	3	3	....	7	7	....	12,613	34.56
	1905	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Philippine Islands	1906	12,380	21,050	18,501	2,549	143	107	36	115	57	58	258	164	94	286,271	784.30
	1905	11,057	17,688	15,334	2,354	1	1	....	90	43	47	91	44	47	239,257	655.50
Hawaii	1906	232	234	181	53	5	5	....	2	2	....	7	7	....	4,228	11.58
	1905	176	176	134	42	1	1	....	....	....	....	1	1	....	2,552	7.00
Army transports	1906	1,282	972	909	63	2	2	....	9	6	3	11	8	3	19,956	54.67
	1905	1,870	1,341	1,277	64	....	....	....	6	5	1	6	5	1	23,764	65.11
Total[a]	**1906**	**56,443**	**72,071**	**59,439**	**12,632**	**1,523**	**1,374**	**149**	**358**	**192**	**166**	**1,881**	**1,566**	**315**	**1,025,815**	**2,808.24**
	1905	56,901	73,742	60,225	13,517	1,464	1,308	156	368	206	162	1,832	1,514	318	1,016,230	2,784.19
Regular Army, American troops, 1898 to 1904		65,556	841,195	744,690	96,505	10,621	9,162	1,459	6,808	4,895	1,913	17,429	14,057	3,372	....	....

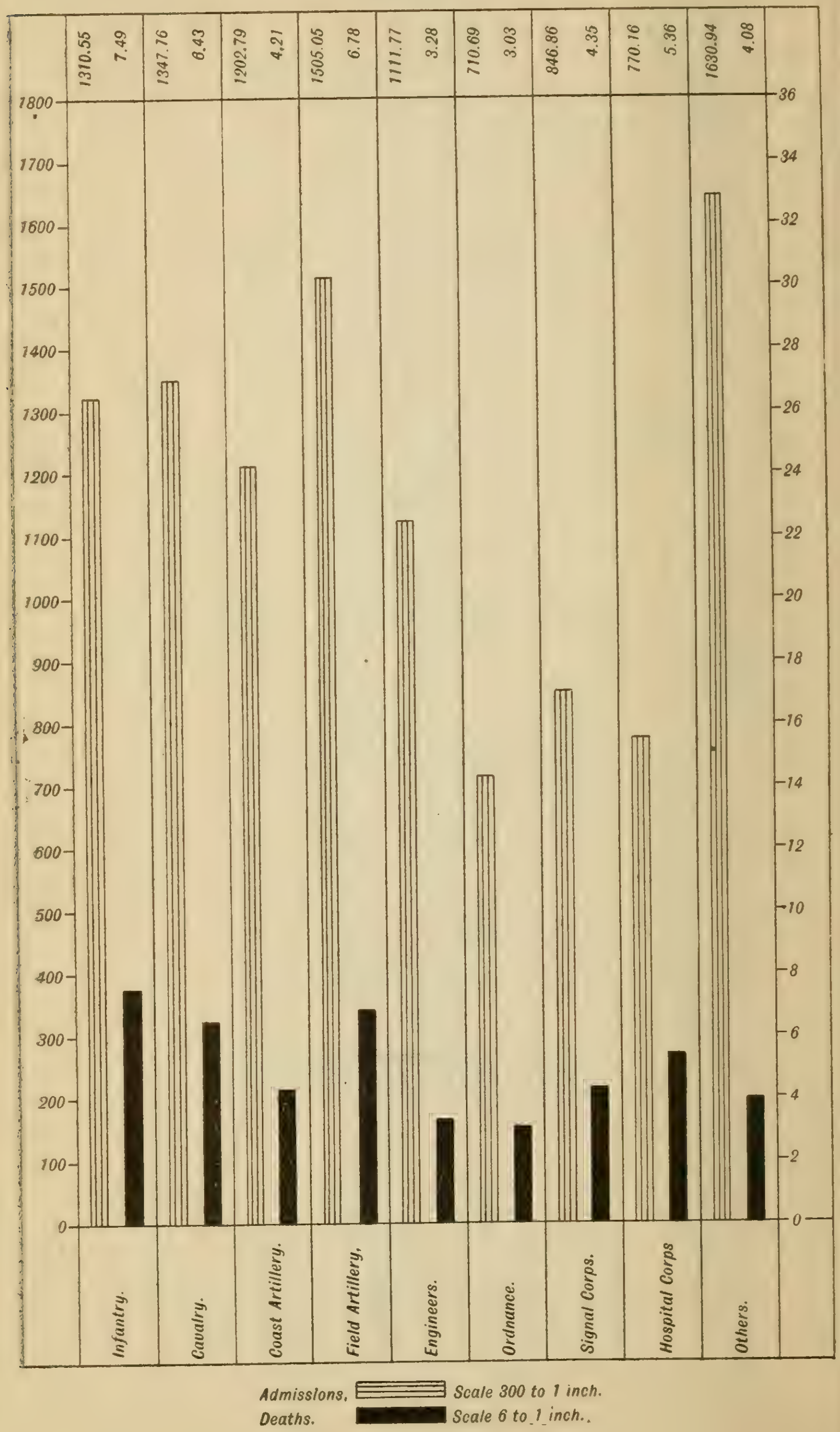
[a] China (strength of 110) year 1905, not used in this table.

Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1906 compared with corresponding data for the year 1905, by countries—Proportionate numbers.

American troops (enlisted).		Mean strength.	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Total losses.			Constantly noneffective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
United States	1906..	40,621	1,179.93	943.99	235.94	32.29	29.62	2.68	5.28	2.84	2.44	37.57	32.45	5.12	46.92	17.13	14.52
	1905..	42,834	1,250.29	997.78	252.51	33.88	30.26	3.62	6.14	3.55	2.59	40.02	33.81	6.21	47.26	17.25	13.80
Alaska	1906..	805	714.29	549.07	165.22	5.38	5.38	....	6.46	4.31	2.15	11.84	9.69	2.15	23.87	8.71	12.20
	1905..	854	944.97	687.35	257.61	11.71	10.54	1.17	9.37	5.85	3.51	21.08	16.39	4.68	30.80	11.24	11.90
Cuba	1906..	1,123	1,166.52	943.90	222.62	3.19	3.19	....	2.40	2.40	....	5.59	5.59	....	30.77	6.60	9.28
	1905..																
Philippine Islands	1906..	12,380	1,700.32	1,494.43	205.90	11.33	8.48	2.85	9.11	4.52	4.60	20.44	13.00	7.45	63.35	23.12	13.60
	1905..	11,057	1,599.72	1,386.81	212.90	.09	.09	....	8.14	3.89	4.25	8.23	3.98	4.25	59.28	21.64	13.53
Hawaii	1906..	232	1,008.62	780.17	228.45	20.16	20.16	....	8.06	8.06	....	28.22	28.22	....	49.93	18.22	18.07
	1905..	176	1,000.00	761.36	238.64	5.68	5.68	....	....	....	....	5.68	5.68	....	39.73	14.50	14.50
Army transports	1906..	1,282	758.19	709.05	49.14	1.56	1.56	....	7.02	4.68	2.34	8.58	6.24	2.34	42.65	15.57	20.53
	1905..	1,870	717.11	682.89	34.22	....	....	....	3.21	2.67	.53	3.21	2.67	.53	34.82	12.71	17.72
Total [a]	**1906..**	**56,443**	**1,276.88**	**1,053.08**	**223.80**	**26.00**	**23.46**	**2.54**	**6.11**	**3.28**	**2.83**	**32.11**	**26.74**	**5.37**	**49.79**	**18.17**	**14.23**
	1905...	56,901	1,295.97	1,058.42	237.55	25.00	22.34	2.66	6.28	3.52	2.77	31.28	25.86	5.43	48.93	17.86	13.78
Regular Army, American troops, 1898 to 1904		65,556	1,833.11	1,622.81	210.30	22.81	19.68	3.13	14.62	10.51	4.11	37.43	30.19	7.24	....	....	....

[a] China (strength of 110), year 1905, not used in this table.

Chart showing the relative admission and death ratios per thousand of mean strength, by arms of service.



This year for the first time all deaths and discharges which occurred in the United States, of soldiers invalided home from foreign service and whose organizations remained abroad were charged to the country from which the soldiers were invalided. Even this step toward greater accuracy of statistics by countries leaves a large number of deaths and discharges which can only be assigned to the United States, though the diseases which led to these terminations were contracted on foreign service.

Alaska as usual had the lowest admission and constantly noneffective rates, and, next to Cuba, the lowest discharge and total loss rates.

The discharge, death, total loss, and, next to Alaska, the constant noneffective rates, were lower in Cuba than any other country where American troops were serving.

The United States proper had the highest discharge rate, but, next to Cuba, the lowest death rate, and the lowest death rate for disease which has been heretofore recorded.

The Philippine Islands had as usual the highest admission, death, and constantly noneffective rates, and all the rates were a little higher than for 1905.

The rates for Hawaii were not as good as for last year.

OFFICERS.[a]

The mean strength of officers was 3,413, as obtained from the returns of the Medical Department, and 3,710 from The Adjutant-General.

There were 2,373 admissions, 18 deaths, and 116.67 constantly noneffective from all causes, equal to ratios of 695.28, 4.85, and 34.18, respectively, compared with 621.40, 6.15, and 29.38, the corresponding rates for the preceding year, and 665.30, 7.08, and 31.25 for the year 1904.

The admission and noneffective rates for the past year were slightly higher than for 1905, but the death rate showed a material improvement.

For disease the highest admission rates were as follows: Diarrhea and enteritis, 63.28; malaria, 62.12; bronchitis, 34.28, and influenza, 24.90. The highest death rates were caused by pneumonia, 1.08; cancer, 0.54; chronic nephritis, 0.27, and organic heart disease, 0.27; and the highest noneffective rates by tuberculosis, 3.12; dysentery, 2.08; diarrhea and enteritis, 1.42, and malaria, 1.33. There were 5 deaths from wounds and 1 from drowning.

INFLUENCE OF ARM OF SERVICE.

(See tables, pp. 176 and 180.)

In these comparisons the ordnance department has been omitted, owing to their small number and the special character of their services.

The admission rate was highest in the field artillery and lowest in the hospital corps, while the death rate was highest in the infantry and lowest in the engineers.

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[a] American officers of Philippine Scouts and the Porto Rican regiment are included in the statement.

By special diseases the infantry had the highest rates for venereal affections and the hospital corps the lowest; the coast artillery had the highest rate for alcoholism and the lowest for dysentery and typhoid fever; the field artillery had the lowest rate for alcoholism and the highest for malaria; the engineers had the highest rate for typhoid fever; the hospital corps the highest for dysentery and tuberculosis; and the engineers the lowest for tuberculosis.

The infantry had 15 men killed in action and 75 wounded, giving ratios of 0.65 and 3.37 per 1,000, respectively; 4 of the wounded died as a result of their wounds. The cavalry had 5 killed and 1 wounded, ratios 0.43 and 0.09, and the hospital corps 1 killed and 2 wounded, 1 of whom died from the effects of his wound.

COMPARISON WITH FOREIGN ARMIES.

In the following tables a comparison is made of all the data available from the annexes of the annual reports of the medical departments of the respective countries containing the international tables agreed upon. Unfortunately the figures are not really comparable. In the United States the admissions include all soldiers who are excused from any part of their military duties, while this is not the case in any other country. The recruiting conditions vary greatly in each country; the United States and Great Britain rely on voluntary enlistment, while the other countries have conscription; Germany has a much larger number of men to select from than France, and there are other differences of equal importance.

The strength is differently estimated in different countries. Some have a low death rate because their sick are promptly discharged or retired and die out of service instead of on sick report.

That portion of the army serving outside the geographical limits of the United States has been omitted this year, as the figures shown by other armies, except Great Britain, appear to be for troops on home service only.

It will be noted that the highest admission rate, 1,321, was attained in the Dutch army; the next highest in the American army, 1,179.93, and the lowest, 348, in the Russian army.

The highest death rate, 5.61, was recorded in the British army, the American army having the next highest rate, 5.28, and the Prussian army the lowest, 1.86.

The figures for total loss, the combined rates for deaths and discharges, form one of the best bases for comparison; according to this standard American troops rank fourth, after those of Belgium, Russia, and Great Britain, but far ahead of all others.

Another factor of importance in judging of the relative healthfulness of different armies is the average duration of each case of sickness; from this standpoint the American army excelled all others except the Prussian, Bavarian, and Dutch armies. The average duration of each case in the American army was about one-half that of the Russian army and a little more than half that of the British army.

With regard to special diseases the admission rates in the American army were better than in most other armies in the following instances: Pleurisy, pneumonia, scarlatina, sunstroke, erysipelas, and epidemic cerebro-spinal meningitis; they were much higher than in any other army in the following: alcoholism, gonorrhea, influenza, mumps, and syphilis (British army excepted). Some of the diseases in which the rates were better in the American army than in the Russian army were diphtheria, erysipelas, malaria, pleurisy, pneumonia, scarlatina, trachoma, and variola.

The admission rate for dysentery in the British army was less than that of the American army, but the former had a death rate of 0.16 per 1,000, while there was no death from that cause in the latter. The death rates for malaria were also greater in the British, Dutch, Russian, Spanish, and Belgian armies than in the American army, although the corresponding admission rates were much lower.

Chart showing a comparison with foreign armies of the relative admission and death ratios per thousand of mean strength.

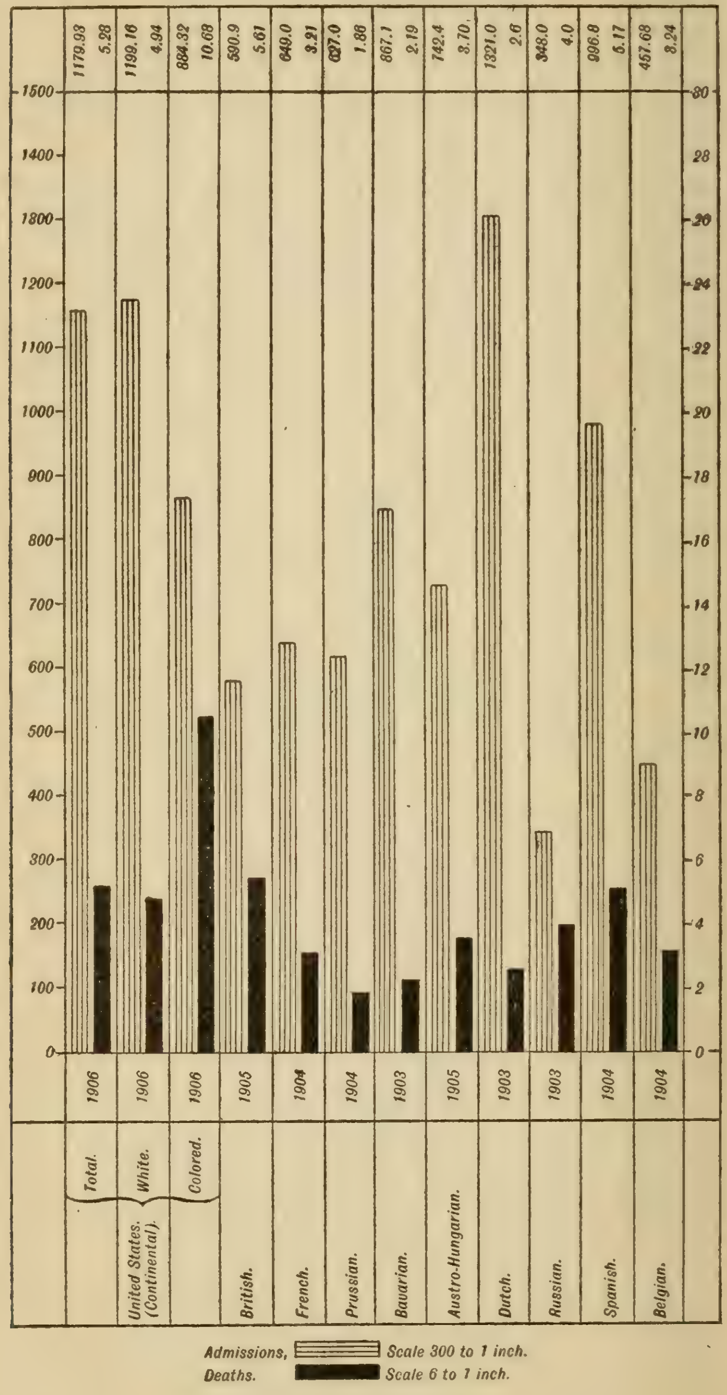


Chart showing a comparison with foreign armies of the relative total loss, death, and discharge ratios per thousand of mean strength.

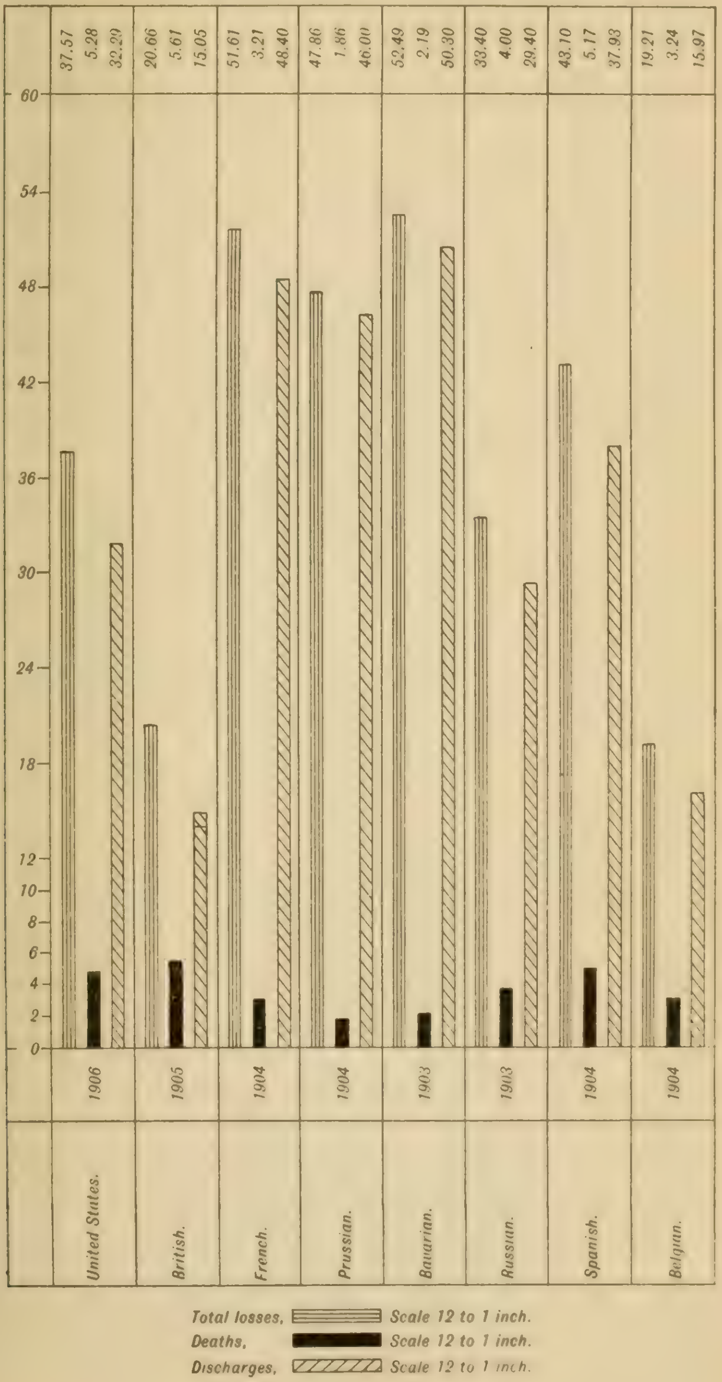


TABLE I.—*A comparison of the admission and death rates of the United States Army at home for certain special diseses with those of foreign armies.*

	Admission rates per 1,000 of mean strength.												Death rates per 1,000 of mean strength.											
	United States (continental) (enlisted men), year 1906.			British, year 1905.	French, year 1904.	Prussian, year 1904.	Bavarian, year 1903.	Austro-Hungarian, year 1905.	Dutch, year 1903.	Russian, year 1903.	Spanish, year 1904.	Belgian, year 1904.	United States (continental) (enlisted men), year 1906.			British, year 1905.	French, year 1904.	Prussian, year 1904.	Bavarian, year 1903.	Austro-Hungarian, year 1905.	Dutch, year 1903.	Russian, year 1903.	Spanish, year 1904.	Belgian, year 1904.
	White.	Colored.	Total.										White.	Colored.	Total.									
1. Alcoholismus acutus, including delirium tremens	32.09	7.26	30.58	1.9	0.29	0.08	0.06	.....	0.24	0.1	0.01	0.15	0.03	.....	0.02	0.07	.....	.....	.....	.....	.....	0.001	.....	.....
2. Bronchitis acuta	46.46	19.75	44.83	19.1	76.2	48.9	75.6	89.7	80.4	19.7	32.66	34.97	.....	.....	.....	.02	.....	.....	.....	0.05	.....	.02	0.10	.....
3. Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.03	.....	.....	.....	.....	.....	.....	.....	.....
4. Cholera nostras	.42	.81	.44	.....	.....	.....	.....	.....	.....	.01	.....	.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.001	.....	.....
5. Diphtheria et croup	.45	.....	.42	.2	1.2	.54	.2	.0	.03	.1	.03	.05	.....	.....	.....	.....	0.03	0.02	.....	.00	.....	.001	.....	.....
6. Dysenteria	6.14	3.22	5.96	5.1	2.3	.03	.....	.6	.105	.9	.12	.....	.....	.....	.....	.16	.04	.....	.....	.01	.....	.08	.02	.....
7. Erysipelas	.71	.81	.71	.5	1.6	1.4	2.4	1.5	1.7	2.5	3.75	.84	.....	0.40	.02	.02	.01	.01	.....	.01	.....	.06	.02	.....
8. Febris intermittens (malaria)	49.19	18.54	47.31	42.6	1.1	.14	.08	1.5	7.4	35.0	22.23	.22	.....	.....	.....	.07	.....	.....	.....	.00	0.03	.05	.19	0.02
9. Febris recurrens	.....	.....	.....	1.9	.....	.....	.....	.....	.....	.03	1.07	.....	.....	.....	.....	.02	.....	.....	.....	.....	.....	.....	.....	.....
10. Gonorrhea	106.11	91.50	105.22	58.9	21.1	12.9	13.5	29.0	20.1	21.7	23.05	22.14	.03	.....	.02	.....	.....	.....	0.02	.....	.....	.....	.....	.....
11. Hernia	6.74	3.22	6.52	2.8	6.3	2.0	.98	5.1	5.6	2.3	4.34	5.25	.....	.....	.....	.....	.....	.....	.....	.00	.....	.001	.....	.....
12. Influenza	23.02	21.77	22.94	14.9	21.7	8.8	12.7	5.8	19.7	17.7	21.44	14.04	.03	.....	.02	.12	.21	.01	.02	.02	.03	.04	.12	.....
13. Insolatio (Hitzschlag, coup de chaleur)	.08	.....	.07	2.3	.53	.12	.67	.4	.07	.03	.....	.42	.05	.....	.05	.25	.01	.01	.....	.01	.....	.....	.....	.....
14. Meningitis cerebro-spinalis epidemica	.03	.....	.02	.1	.07	.07	.16	.....	.03	.01	.02	.07	.03	.....	.02	.07	.04	.01	.02	.....	.03	.01	.02	.05
15. Morbilli	6.74	.40	6.35	1.3	6.05	.65	.98	.7	.81	.2	5.78	.42	.....	.....	.....	.....	.05	.....	.02	.01	.....	.003	.10	.....
16. Parotitis epidemica	21.66	9.67	20.93	.1	11.8	.71	2.3	2.5	.71	2.6	7.61	.42	.....	.....	.....	.....	.....	.....	.....	.00	.....	.....	.....	.....
17. Pleuritis	3.43	4.03	3.47	.....	7.8	3.5	3.8	6.6	(*a*)	9.0	2.04	3.59	.03	.....	.02	.....	.04	.03	.09	.16	(*a*)	.18	.02	.10
18. Pneumonia crouposa sive lobaris	2.20	4.43	2.34	3.4	2.4	5.9	8.3	4.6	4.9	5.6	2.62	2.53	.15	1.58	.24	.39	.15	.25	.36	.26	.31	.40	.17	.22
19. Rheumatismus articulorum	17.86	20.15	17.99	13.1	14.2	8.3	13.8	12.1	11.5	5.8	16.29	14.29	.....	.....	.....	.02	.02	.02	.02	.02	.....	.01	.03	.02
20. Scarlatina	.05	.....	.05	.7	1.9	.6	1.3	.2	1.3	.1	.08	.32	.....	.....	.....	.02	.05	.01	.06	.01	.....	.004	.....	.....
21. Scorbutus	.....	.....	.....	.....	.....	.01	.....	1.6	.....	.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.01	.....	.....
22. Syphilis	27.34	26.20	27.28	57.2	6.6	4.4	3.3	20.1	5.5	12.8	10.43	7.35	.03	.40	.05	.09	.....	.....	.02	.00	.....	.01	.....	.....
23. Trachoma	.58	.40	.57	.....	.05	.37	.06	3.8	.....	6.5	.....	.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24. Tuberculosis pulmonum	4.27	8.06	4.51	2.1	4.7	1.6	1.8	1.5	6.03	3.7	7.22	5.67	.53	2.37	.64	.35	.37	.12	.20	.48	.60	.76	.83	.57
25. Tuberculosis ceterorum organorum	.68	1.21	.71	.2	1.9	.39	.19	3.1	.95	.....	.26	.57	.13	.40	.14	.05	.29	.08	.08	.29	.03	.....	.03	.17
26. Typhus abdominalis	6.00	.40	5.66	6.9	5.3	.79	.47	2.1	.74	5.3	4.82	.10	.30	.....	.28	1.15	.69	.08	.02	.32	.17	.76	1.36	.40
27. Typhus exanthematicus	.....	.....	.....	.....	.....	.....	.....	.0	.....	.3	.02	.....	.....	.....	.....	.....	.....	.....	.....	.00	.....	.01	.02	.....
28. Ulcus molle (including adenitis venerea)	26.01	32.65	26.41	.....	2.1	2.5	1.5	10.9	(*a*)	6.0	28.65	.94	.....	.....	.....	.....	.....	.....	.....	.....	(*a*)	.....	.....	.....

29. Variola	.16	2.42	.30	.4	.04	.....	.....	.0	.....	.1	.74	.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.01	.01	.....
30. Morbi auris	10.09	1.61	9.58	8.5	6.5	12.1	17.4	16.5	19.8	12.2	4.26	16.24	.03	.....	.02	.02	.....	.02	.02	.01	.03	.07	.02	.....
31. Morbi cordis	3.49	1.61	3.37	8.1	3.7	3.4	3.9	3.6	2.5	2.5	4.66	5.64	.23	.40	.24	.33	.03	.03	.03	.05	.03	.05	.20	.05
32. Morbi cutis	22.05	8.46	21.22	34.2	20.6	14.4	14.1	153.4	170.1	44.5	50.71	21.87	.....	.....	.....	.01	.....	.....	.....	.04	.03	.03	.04	.....
33. Morbi mentis	1.28	2.02	1.33	1.0	.44	.98	.9	.7	1.6	.7	.68	1.78	.....	.....	.....	.01	.....	.....	.....	.00	.....	.01	.01	.....
34. Morbi oculi	21.13	24.59	21.34	7.9	6.2	14.3	21.2	30.1	34.7	16.4	11.53	18.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35. Morbi systemat. urin. et sexual. (excluding venerie et syphilis)	15.60	17.33	15.71	12.8	9.3	5.1	5.9	13.4	10.7	5.5	6.97	6.74	.13	.40	.14	.11	.05	.04	.03	.07	.07	.07	.02	.05

a Disease not reported on table.

TABLE II.—*Total movement of sick for the United States Army at home compared with that of foreign armies.*

	United States (continental), year 1906. (American troops—Enlisted men).						British, year 1905.		French, year 1904.		Prussian, year 1904.	
	Total white and colored.		White.		Colored.							
	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.
Mean strength:												
Officers and enlisted men	....	....	....	....	....	....	....	....	[a]474,345	....	....	....
Enlisted men	[b]40,621	....	[b]38,140	....	[b]2,481	....	240,075	....	....	....	529,427	....
Admitted to sick report	47,930	32,270	45,736	30,695	2,194	1,575	....	141,849	275,348	101,851	331,925	137,708
Ratio per 1,000 of mean strength	1,179.93	794.42	1,199.16	804.80	884.32	634.82	....	[d]590.9	649.0	215.0	627.0	260.1
Disposed of, all causes	[c]48,611	....	[c]46,393	....	[c]2,218	....	....	....	....	....	330,781	....
Ratio per 1,000 of mean strength	1,196.70	....	1,216.39	....	893.99	....	....	....	....	....	624.79	....
Died, all causes	223	....	196	....	27	....	1,396	....	[e]1,525	....	[e]984	....
Ratio per 1,000 of mean strength	5.28	....	4.94	....	10.68	....	[d]5.61	....	3.21	....	1.86	....
Ratio per 1,000 of all disposed of	4.59	....	4.22	....	12.17	....	....	....	....	....	2.97	....
Died of disease	120	....	102	....	18	....	....	....	1,266	....	648	....
Ratio per 1,000 of mean strength	2.84	....	2.57	....	7.12	....	....	....	2.67	....	1.22	....
Died of injury	103	....	94	....	9	....	....	....	259	....	336	....
Ratio per 1,000 of mean strength	2.44	....	2.37	....	3.56	....	....	....	.54	....	.63	....
Died on sick report or present with command	137	....	119	....	18	....	....	....	1,274	....	714	....
Ratio per 1,000 of mean strength	3.23	....	3.00	....	7.12	....	....	....	....	....	1.35	....
Ratio per 1,000 of all disposed of	2.82	....	2.57	....	8.12	....	....	....	....	....	2.16	....
Died not on sick report or absent from command	86	....	77	....	9	....	....	....	251	....	270	....
Accidental deaths	76	....	68	....	8	....	....	....	174	....	133	....
Suicides	27	....	26	....	1	....	....	....	85	....	203	....
Returned to duty	45,857	....	43,746	....	2,111	....	....	....	....	....	313,127	....
Ratio per 1,000 of all disposed of	943.35	....	942.94	....	951.76	....	....	....	....	....	946.6	....
Otherwise disposed of	2,531	....	2,451	....	80	....	....	....	....	....	17,019	....
Ratio per 1,000 of all disposed of	52.07	....	52.83	....	36.07	....	....	....	....	....	51.4	....
Total days lost on account of sickness	695,733	576,311	661,909	547,237	33,824	29,074	....	3,130,094	4,292,761	....	4,925,149	....
Constantly noneffective on account of sickness	1,906.1	1,578.9	1,813.4	1,499.3	92.7	79.6	....	8,575.6	11,728.9	....	13,456.7	....
Ratio per 1,000 of mean strength	46.92	38.87	47.55	39.31	37.35	32.11	....	[d]36.18	24.73	....	25.42	....
Average days' treatment:												
For each soldier of mean strength	17.13	14.19	17.35	14.35	13.63	11.72	....	[d]13.20	9.7	....	9.3	....
For each case of sickness	14.52	17.86	14.47	17.83	15.42	18.46	....	[d]22.48	15.5	....	14.4	....
Discharges for disability, all causes	1,364	....	1,323	....	41	....	3,700	....	22,985	....	24,357	....
Ratio per 1,000 of mean strength	32.29	....	33.32	....	16.22	....	15.05	....	48.4	....	46.0	....
Total losses per 1,000 of mean strength	37.57	....	38.26	....	26.90	....	20.66	....	51.61	....	47.86	....

	Bavarian, year 1903.		Austro-Hungarian, year 1905.		Dutch, year 1903.		Russian, year 1903.		Spanish, year 1904.		Belgian, year 1904.	
	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.	Total.	Hospital.
Mean strength:												
Officers and enlisted men												
Enlisted men	64,240		283,558		28,357		1,082,485		85,770		40,382	
Admitted to sick report	55,701	16,034	210,529	96,132	37,497	20,013	376,704	340,179	85,500	32,556		18,432
Ratio per 1,000 of mean strength	867.1	249.6	742.4	339.0	1,321.0	676.0	348.0	314.3	996.8	379.5		457.68
Disposed of, all causes	55,724		211,497		38,003		375,945		85,413			18,165
Ratio per 1,000 of mean strength	867.43		745.87		1,340.0		347.30		995.84			449.83
Died, all causes	*e* 141		*e* 1,050		*e* 75		4,337		*e* 444		*e* 131	88
Ratio per 1,000 of mean strength	2.19		3.70		2.6		4.0		5.17		3.24	2.18
Ratio per 1,000 of all disposed of	2.53		4.97		2.0		11.5		5.20			4.84
Died of disease	98		721		66		3,893		418		102	83
Ratio per 1,000 of mean strength	1.53		2.54		2.2		3.60		4.87		2.53	2.06
Died of injury	43		329		9		444		26		29	5
Ratio per 1,000 of mean strength	.67		1.16		.3		.4		.30		.71	.12
Died on sick report or present with command	104											
Ratio per 1,000 of mean strength	1.62											
Ratio per 1,000 of all disposed of	1.87											
Died, not on sick report or absent from command	37											
Accidental deaths	23		82		5		295		14		24	
Suicides	20		247		4		149		12		5	
Returned to duty	53,272		182,878		35,476		340,234		79,180			15,645
Ratio per 1,000 of all disposed of	956.0		864.7		932.0		905.0		927.0			861.27
Otherwise disposed of	2,359		27,898		2,461		31,818		5,815			2,432
Ratio per 1,000 of all disposed of	42.3		131.9		65.3		84.6		68.11			133.88
Total days lost on account of sickness	688,166		3,696,265			276,826	10,639,243			905,163		344,517
Constantly noneffective on account of sickness	1,885.4		10,126.75			758.43	29,148.61			2,473.12		941.30
Ratio per 1,000 of mean strength	29.35		35.71			26.75	26.93			28.83		23.31
Average days' treatment:												
For each soldier of mean strength	10.7		13.0			9.7	9.8			10.5		8.53
For each case of sickness	12.1		16.9			13.7	28.3			26.3		18.64
Discharges for disability, all causes	3,233						30,510		3,256		645	
Ratio per 1,000 of mean strength	50.3						29.4		37.93		15.97	
Total losses per 1,000 of mean strength	52.22						33.4		43.10		19.21	

a Total effective, including officers.

b Death ratios are calculated on the average strength present and absent, total, 42,239; white, 39,711; colored, 2,528.

c All dispositions in the year, including those of cases remaining from previous year.

d British ratios for the United Kingdom are: Admitted, 448.8; died, 2.73; noneffective, 26.39; average days for each soldier, 9.63; for each case, 21.46.

e The number of deaths are given as reported on Int. table No. IX and ratios made therefrom, thereby affording better comparison with the same figures for American troops.

KILLED AND WOUNDED IN ACTION.

Twenty-one enlisted men were killed in action and 78 wounded, of whom 5 died as a result of their wounds and 1 committed suicide. Of the killed, 16 were by gunshot and 5 by bolo. The 3 officers wounded by gunshot were returned to duty; 1 officer lost vision of the left eye by being wounded with a piece of rock while in action.

Detailed information is shown in the following tables:

AMERICAN OFFICERS.

Wounds received in action by gunshot.

Character and location of wound.	Missile, .45-caliber ball.	Disposition, duty.	Arm of service.			
			Infantry.	Cavalry.	Signal Corps.	Total.
Shoulder, joint	1	1			1	1
Hand, flesh	1	1	1			1
Thigh, flesh	1	1		1		1
Total	3	3	1	1	1	3

Wounds received in action other than gunshot.

Character and location of wound.	Missile, piece of rock.	Disposition, duty.	Arm of service, infantry.
Face, flesh	1	1	1

NOTE.—Laceration of cornea and resulting loss of vision left eye.

AMERICAN TROOPS.

Killed in action by gunshot.

Character and location of wound.	Nature of missile.						Arm of service.			
	.50-caliber ball.	.45-caliber ball.	.30-caliber ball.	Caliber unknown.	Bursting cannon.	Total.	Infantry.	Cavalry.	Hospital Corps.	Total.
Skull, fracture			4			4	4			4
Face, fracture	1	1				2	1	1		2
Neck		1	1	1		3	1	2		3
Thorax, penetrating	3		2			5	4		1	5
Arm, flesh	1					[a] 1	1			1
Thigh, fracture, middle third					1	[b] 1		1		1
Total	5	2	7	1	1	16	11	4	1	16

[a] Died of hemorrhage.

[b] Complete destruction of thigh at middle third and arm at elbow.

Wounds received in action by gunshot.

Character and location of wound.	Nature of missile.							Disposition.					Arm of service.		
	.50-caliber ball.	.45-caliber ball.	.30-caliber ball.	Number 3 shot.	Caliber unknown.	Fragment of gun bolt.	Total.	Duty.	Discharged, surgeon's certificate of disability.	Died.	Remaining end of year.	Total.	Infantry.	Hospital Corps.	Total.
Head, flesh	....	....	3	....	1	....	4	4	....	....	....	4	4	....	4
Skull, fracture	....	....	1	....	....	....	1	1	....	....	....	1	1	....	1
Face:															
Flesh	....	....	....	....	1	1	2	1	....	....	1	2	2	....	2
Fracture	....	2	1	....	....	....	3	2	1	....	....	3	3	....	3
Thorax:															
Nonpenetrating	....	....	2	[a] 1	....	....	3	2	....	....	1	3	3	....	3
Penetrating	....	....	2	....	....	....	2	1	....	1	....	2	2	....	2
Abdomen:															
Nonpenetrating	....	....	....	....	1	....	1	1	....	....	....	1	....	1	1
Penetrating	....	....	2	....	....	....	2	....	....	2	....	2	1	1	2
Hip, flesh	....	....	1	....	1	....	2	1	....	....	1	2	2	....	2
Shoulder:															
Flesh	....	....	1	....	1	....	2	2	....	....	....	2	2	....	2
Joint	1	1	....	....	....	....	2	1	1	....	....	2	2	....	2
Arm:															
Flesh	1	1	2	....	....	....	4	4	....	....	....	4	4	....	4
Fracture	....	....	1	....	....	....	1	1	....	....	....	1	1	....	1
Forearm:															
Flesh	....	1	2	....	1	....	4	4	....	....	....	4	4	....	4
Fracture	....	2	....	....	....	....	2	2	....	....	....	2	2	....	2
Hand:															
Flesh	....	....	1	....	....	....	1	1	....	....	....	1	1	....	1
Fracture	1	....	....	....	....	....	1	1	....	....	....	1	1	....	1
Thigh:															
Flesh	1	3	7	....	....	....	11	9	....	1	1	11	11	....	11
Fracture, lower third	....	....	1	....	....	....	1	....	....	....	1	1	1	....	1
Knee joint	....	1	....	....	....	....	1	....	1	....	....	1	1	....	1
Leg, flesh	....	1	3	....	....	....	4	2	....	....	2	4	4	....	4
Total	4	12	30	1	6	1	54	40	3	4	7	54	52	2	54

[a] Multiple wounds.

Killed in action by wounds other than gunshot.

Character and location of wound.	Weapon (bolo).	Arm of service.		
		Infantry.	Cavalry.	Total.
Thorax, penetrating	2	2	....	2
Abdomen, penetrating	3	2	1	3
Total	5	4	1	5

Wounds received in action other than gunshot.

Character and location of wound.	Weapon or missile.					Disposition.				Arm of service.		
	Bolo.	Spear.	Arrow.	Piece of rock.	Total.	Duty.	Died.	Remaining end of year.	Total.	Infantry.	Cavalry.	Total.
Head, flesh	1	....	....	1	2	1	....	1	2	2	....	2
Skull, fracture	....	....	....	1	1	1	....	....	1	1	....	1
Face, flesh	2	....	....	....	2	2	....	....	2	2	....	2
Thorax, penetrating	1	2	....	....	3	3	....	....	3	2	1	3
Shoulder, flesh	2	1	1	....	4	3	....	1	4	4	....	4
Arm, flesh	1	....	....	....	1	....	....	1	1	1	....	1
Forearm, flesh	....	1	....	....	1	1	....	....	1	1	....	1
Hand, flesh	....	1	....	....	1	1	....	....	1	1	....	1
Thigh, flesh	....	7	....	....	7	5	[a] 2	....	7	7	....	7
Leg, flesh	....	2	....	....	2	2	....	....	2	2	....	2
Total	7	14	1	2	24	19	2	3	24	23	1	24

[a] One died of hemorrhage, and one committed suicide.

SURGICAL OPERATIONS.

On page 137 will be found a table of major surgical operations performed by the medical officers upon officers and enlisted men of the army. Although the total number of operations, 3,189, is greater than that of last year, the number of unsuccessful operations and deaths is considerably less. Of the 28 deaths 7 followed 183 operations for appendicitis, 4 were the result of gunshot wound of abdomen with perforation of intestine, and 3 followed 16 operations for abscess of the liver. There was 1 fatality from anesthesia. Spinal anesthesia was used in 73 cases with no bad result. Out of 192 operations for hernia there were 3 failures and 1 death, the latter due to accidental wounding of the urinary bladder.

RECRUITING.

The plan adopted in the army September 30, 1905, discontinuing the employment of civilian physicians as examiners of recruits, was further amended in July, 1906, so as to discontinue all enlistments and reenlistments (except the reenlistment of members of recruiting parties) at general recruiting stations, and to require that such enlistments should only be made at depots and depot posts after examination by a medical officer of the Army. This has been efficiently carried out during the past year, and the highly satisfactory results obtained demonstrate its many advantages to the service over the old system of recruiting. From a physical standpoint no complaint of the unsatisfactory character of assigned recruits has reached this office during the year.

After a brief trial of the amended recruiting regulations regarding the requirement of six serviceable molars, it was found that quite a number of otherwise physically qualified, desirable candidates for enlistment were being lost to the service on account of defective teeth, and it was deemed advisable to modify the order to read that unless an applicant has at least four serviceable double (bicuspid or molar) teeth, two above and two below, and so opposing as to serve the purpose of mastication, he should be rejected.

The figures in these tables include all recruits examined physically up to July 31, 1906, but do not include applicants for enlistment rejected at general recruiting stations from August 1 to December 31, 1906. The number of rejections on primary examination reported to this office January 1 to July 31 was 4,953, while from August to December it was only 672.

The first table shows the number of applicants for enlistment, white and colored, examined physically during the year 1906, with the number accepted, rejected on primary examination, rejected at depots before assignment, and the number who declined enlistment, with ratios per thousand:

TABLE A.

	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Examined	24,259	1,000.00	763	1,000.00	25,022	1,000.00
Accepted [a]	17,085	704.27	585	766.71	17,670	706.18
By first enlistment	10,746	442.97	168	220.18	10,914	436.18
By all other enlistments	6,339	261.30	417	546.53	6,756	270.00
Rejected on primary examination	5,484	226.06	141	184.80	5,625	224.80
Rejected on secondary examination [a]	382	15.75	1	1.31	383	15.31
Declined	1,690	69.67	37	48.49	1,727	69.02

[a] Three hundred and eighty-three accepted recruits were rejected at depots before assignment and discharged for disabilities existing before enlistment.

The proportion of finally accepted recruits was slightly in excess of that for last year in both white and colored candidates.

Table B shows the nativity of the accepted applicants for enlistment for the year. The proportion of foreign-born white recruits was slightly smaller than for 1905, 139.71 as against 146.12 per 1,000. The relative number from different foreign countries was about as usual.

TABLE B.

Country.	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
United States	14,698	860.29	585	1,000.00	15,283	864.91
Germany	557	32.60			557	31.52
Ireland	486	28.45			486	27.50
England	271	15.86			271	15.34
Canada	201	11.76			201	11.38
Russia	186	10.89			186	10.53
Scandinavia	177	10.36			177	10.02
Austria	176	10.30			176	9.96
Scotland	67	3.92			67	3.79
Denmark	57	3.34			57	3.22
Italy	48	2.81			48	2.72
Switzerland	44	2.58			44	2.49
Hungary	37	2.17			37	2.09
Holland	24	1.40			24	1.36
France	17	.99			17.	.96
Cuba	4	.23			4	.23
Spain	3	.18			3	.17
Others	32	1.87			32	1.81
Total foreign	2,387	139.71			2,387	135.09
Grand total	17,085	1,000.00	585	1,000.00	17,670	1,000.00

The following tables have been carefully prepared and are interesting as showing the state of physical development of the material of which our Army is composed.

The ages of all accepted recruits, white and colored, and the proportion at each age per 1,000 are shown in this statement:

TABLE C.

Age.	White.		Colored.		Total.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
18 years and under	546	31.96	7	11.97	553	31.30
19 years	505	29.56	3	5.13	508	28.75
20 years	344	20.13	4	6.84	348	19.69
21 years	3,481	203.75	49	83.76	3,530	199.77
22 years	2,315	135.50	44	75.21	2,359	133.50
23 years	1,284	75.15	22	37.61	1,306	73.91
24 years	1,254	73.40	33	56.41	1,287	72.83
25 years	1,054	61.70	31	52.99	1,085	61.40
26 years	910	53.26	26	44.44	936	52.97
27 years	793	46.41	40	68.38	833	47.14
28 years	683	39.98	26	44.44	709	40.13
29 years	537	31.43	42	71.79	579	32.77
30 years	458	26.81	32	54.70	490	27.73
31 years	385	22.53	31	52.99	416	23.54
32 years	293	17.15	22	37.61	315	17.83
33 years	270	15.80	18	30.77	288	16.30
34 years	254	14.87	20	34.19	274	15.51
35 years	224	13.11	18	30.77	242	13.70
36 years	215	12.58	15	25.64	230	13.02
37 years	143	8.37	12	20.51	155	8.77
38 years	148	8.66	7	11.97	155	8.77
39 years	110	6.44	6	10.26	116	6.57
40 years and over	879	51.45	77	131.62	956	54.10
Total	17,085	1,000.00	585	1,000.00	17,670	1,000.00

The series of tables which follow show separately for each race the heights of accepted recruits for the year and the proportion of each height per 1,000, also in absolute and proportional numbers the relation of height to age:

TABLE D.—*Relation of height to age.*

ABSOLUTE NUMBERS—WHITE TROOPS.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
5 feet 1 inch and under	1	1	....	3	1	....	1	1	6	14
5 feet 2 inches	....	....	....	2	5	2	2	1	10	22
5 feet 3 inches	9	6	6	39	26	14	13	18	76	207
5 feet 4 inches	64	55	32	309	222	125	134	89	495	1,525
5 feet 5 inches	86	88	46	405	279	149	151	132	746	2,082
5 feet 6 inches	111	91	67	588	344	211	210	162	980	2,764
5 feet 7 inches	106	80	64	641	422	214	201	209	1,142	3,079
5 feet 8 inches	75	85	59	594	403	225	198	164	1,032	2,835
5 feet 9 inches	50	50	38	452	309	151	164	125	758	2,097
5 feet 10 inches	22	21	19	241	155	115	68	80	521	1,242
5 feet 11 inches	14	15	7	127	91	42	58	42	261	657
6 feet	7	11	3	50	42	22	33	19	192	379
6 feet 1 inch	1	1	2	20	12	13	13	9	54	125
6 feet 2 inches	....	1	1	10	4	1	8	3	29	57
Total	546	505	344	3,481	2,315	1,284	1,254	1,054	6,302	17,085

TABLE D.—*Relation of height to age*—Continued.

PROPORTIONAL NUMBERS—WHITE TROOPS.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
5 feet 1 inch and under	1.83	1.98		0.86	0.43		0.80	0.95	0.95	0.82
5 feet 2 inches				.57	2.16	1.56	1.59	.95	1.59	1.29
5 feet 3 inches	16.48	11.88	17.44	11.20	11.23	10.90	10.37	17.08	12.06	12.12
5 feet 4 inches	117.22	108.91	93.02	88.77	95.90	97.35	106.86	84.44	78.55	89.27
5 feet 5 inches	157.51	174.26	133.72	116.35	120.52	116.04	120.41	125.24	118.38	121.86
5 feet 6 inches	203.30	180.20	194.77	168.92	148.60	164.33	167.46	153.70	155.51	161.78
5 feet 7 inches	194.14	158.42	186.05	184.14	182.29	166.67	160.29	198.29	181.21	180.22
5 feet 8 inches	137.36	168.32	171.51	170.64	174.08	175.23	157.89	155.60	163.76	165.93
5 feet 9 inches	91.58	99.01	110.47	129.85	133.48	117.60	130.78	118.60	120.28	122.74
5 feet 10 inches	40.29	41.58	55.23	69.23	66.95	89.56	54.23	75.90	82.67	72.70
5 feet 11 inches	25.64	29.70	20.35	36.48	39.31	32.71	46.25	39.85	41.42	38.45
6 feet	12.82	21.78	8.72	14.36	18.14	17.13	26.32	18.03	30.47	22.18
6 feet 1 inch	1.83	1.98	5.81	5.75	5.18	10.12	10.37	8.54	8.57	7.32
6 feet 2 inches		1.98	2.91	2.87	1.73	.78	6.38	2.85	4.60	3.33
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

TABLE E.—*Relation of height to age.*

ABSOLUTE NUMBERS—COLORED TROOPS.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
5 feet 1 inch and under							1			1
5 feet 2 inches					1				2	3
5 feet 3 inches							1	2	6	9
5 feet 4 inches				5	3	2	5	2	28	45
5 feet 5 inches	3	1		10	4	3	4	1	48	74
5 feet 6 inches	2	1	1	8	7	5	4	8	53	89
5 feet 7 inches	1		1	7	11	3	8	7	74	112
5 feet 8 inches		1	1	9	8	4	1	4	73	101
5 feet 9 inches	1			3	6	2	7	3	54	76
5 feet 10 inches			1	6	2	2	1	4	23	39
5 feet 11 inches				1					17	18
6 feet					1	1	1		10	13
6 feet 1 inch									1	1
6 feet 2 inches					1				3	4
Total	7	3	4	49	44	22	33	31	392	585

PROPORTIONAL NUMBERS—COLORED TROOPS.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
5 feet 1 inch and under							30.30			1.71
5 feet 2 inches					22.73				5.10	5.13
5 feet 3 inches							30.30	64.52	15.31	15.38
5 feet 4 inches				102.04	68.18	90.91	151.52	64.52	71.43	76.92
5 feet 5 inches	428.57	333.33		204.08	90.91	136.36	121.21	32.26	122.45	126.50
5 feet 6 inches	285.71	333.33	250.00	163.27	159.09	227.27	121.21	258.06	135.20	152.14
5 feet 7 inches	142.86		250.00	142.86	250.00	136.36	242.42	225.81	188.78	191.45
5 feet 8 inches		333.33	250.00	183.67	181.82	181.82	30.30	129.03	186.22	172.65
5 feet 9 inches	142.86			61.22	136.36	90.91	212.12	96.77	137.76	129.91
5 feet 10 inches			250.00	122.45	45.45	90.91	30.30	129.03	58.67	66.67
5 feet 11 inches				20.41					43.37	37.69
6 feet					22.73	45.45	30.30		25.51	22.22
6 feet 1 inch									2.55	1.71
6 feet 2 inches					22.73				7.65	6.84
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

Forty-three and twenty-six hundredths per cent of the white recruits were 5 feet 8 inches or over and only 1.42 per cent under 5 feet 4 inches, compared with 49.05 and 0.60 per cent for the previous year, and 43.76 and 2.22 per cent, the corresponding figures for colored troops for 1906.

The following tables show separately for each race the weights of accepted recruits and the proportion of each weight per 1,000, also the relation of weight to age in both absolute and proportional numbers:

TABLE F.—*Relation of weight to age.*

ABSOLUTE NUMBERS—WHITE TROOPS.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
119 pounds and under	31	17	8	66	28	10	16	16	112	304
120 to 124 pounds	60	54	31	206	125	61	61	46	210	860
125 to 129 pounds	94	93	63	390	243	133	108	82	445	1,651
130 to 134 pounds	91	90	57	537	325	158	161	142	653	2,214
135 to 139 pounds	83	81	50	540	354	189	175	142	781	2,395
140 to 144 pounds	69	58	40	494	333	194	181	162	747	2,278
145 to 149 pounds	54	40	32	435	314	163	155	124	742	2,059
150 to 154 pounds	22	32	29	307	222	143	130	108	632	1,625
155 to 159 pounds	23	16	17	213	141	91	79	82	491	1,153
160 to 164 pounds	5	14	7	132	104	51	80	62	377	832
165 to 169 pounds	6	4	5	79	50	43	39	26	346	598
170 to 174 pounds	5	3	2	35	31	22	17	23	215	353
175 to 179 pounds	2	....	1	20	21	8	19	13	152	236
180 pounds and over	1	3	2	27	24	18	33	26	393	527
Total	546	505	344	3,481	2,315	1,284	1,254	1,054	6,302	17,085

PROPORTIONAL NUMBERS—WHITE TROOPS.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
119 pounds and under	56.78	33.66	23.26	18.96	12.10	7.78	12.76	15.18	17.77	17.79
120 to 124 pounds	109.89	106.93	90.12	59.18	54.00	47.51	48.64	43.64	34.27	50.34
125 to 129 pounds	172.16	184.16	183.14	112.04	104.97	103.58	86.12	77.80	70.61	96.63
130 to 134 pounds	166.67	178.22	165.70	154.27	140.39	123.05	128.39	134.72	103.62	129.59
135 to 139 pounds	152.01	160.40	145.35	155.13	152.92	147.20	139.55	134.72	123.93	140.18
140 to 144 pounds	126.37	114.85	116.28	141.91	143.84	151.09	144.34	153.70	118.53	133.33
145 to 149 pounds	98.90	79.21	93.02	124.96	135.64	126.95	123.60	117.65	117.74	120.52
150 to 154 pounds	40.29	63.37	84.30	88.19	95.90	111.37	103.67	102.47	100.29	95.11
155 to 159 pounds	42.12	31.68	49.42	61.19	60.91	70.87	62.99	77.80	77.91	67.49
160 to 164 pounds	9.16	27.72	20.35	37.92	44.92	39.72	63.80	58.82	59.82	48.70
165 to 169 pounds	10.99	7.92	14.53	22.69	21.60	33.49	31.10	24.67	54.90	35.00
170 to 174 pounds	9.16	5.94	5.81	10.05	13.39	17.13	13.56	21.82	34.12	20.66
175 to 179 pounds	3.66	....	2.91	5.75	9.07	6.23	15.15	12.33	24.12	13.81
180 pounds and over	1.83	5.94	5.81	7.76	10.37	14.02	26.32	24.67	62.36	30.84
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1.000.00

TABLE G.—*Relation of weight to age.*

ABSOLUTE NUMBERS—COLORED TROOPS.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
119 pounds and under	....	....	....	2	....	2	....	....	6	10
120 to 124 pounds	....	....	....	3	4	1	1	....	5	14
125 to 129 pounds	4	....	....	5	4	4	2	3	19	41
130 to 134 pounds	2	1	2	5	3	4	4	5	33	59
135 to 139 pounds	1	1	1	7	4	5	5	5	41	70
140 to 144 pounds	....	....	....	4	8	1	6	3	52	74
145 to 149 pounds	....	....	....	7	5	1	4	4	46	67
150 to 154 pounds	....	....	1	9	6	2	4	5	44	71
155 to 159 pounds	....	....	....	3	2	....	2	3	42	52
160 to 164 pounds	....	....	....	2	6	....	1	2	23	34
165 to 169 pounds	....	....	....	....	2	1	3	....	26	32
170 to 174 pounds	....	1	....	1	....	....	....	....	12	14
175 to 179 pounds	....	....	....	....	....	....	....	1	11	12
180 pounds and over	....	....	....	1	....	1	1	....	32	35
Total	7	3	4	49	44	22	33	31	392	585

TABLE G.—*Relation of weight to age*—Continued.

PROPORTIONAL NUMBERS—COLORED TROOPS.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
119 pounds and under				40.82		90.91			15.31	17.09
120 to 124 pounds				61.22	90.91	45.45	30.30		12.76	23.93
125 to 129 pounds	571.43			102.04	90.91	181.82	60.61	96.77	48.47	70.09
130 to 134 pounds	285.71	333.33	500.00	102.04	68.18	181.82	121.21	161.29	84.18	100.86
135 to 139 pounds	142.86	333.33	250.00	142.86	90.91	227.27	151.52	161.29	104.59	119.65
140 to 144 pounds				81.63	181.82	45.45	181.82	96.77	132.65	126.50
145 to 149 pounds				142.86	113.64	45.45	121.21	129.03	117.35	114.53
150 to 154 pounds			250.00	183.67	136.36	90.91	121.21	161.29	112.24	121.37
155 to 159 pounds				61.22	45.45		60.61	96.77	107.14	88.89
160 to 164 pounds				40.82	136.36		30.30	64.52	58.67	58.12
165 to 169 pounds					45.45	45.45	90.91		66.33	54.70
170 to 174 pounds		333.33		20.41					30.61	23.93
175 to 179 pounds								32.26	28.06	20.51
180 pounds and over				20.41		45.45	30.30		81.63	59.83
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

Fifty-six and fifty-four one-hundredths per cent of the white recruits weighed 140 pounds or over, while 1.77 per cent weighed less than 120 pounds; the corresponding figures for colored recruits were 66.83 and 1.70 per cent, showing that colored recruits were heavier than white accepted applicants of the same age.

The next tables show separately for each race the chest measurement of accepted recruits and the proportion of each measurement per 1,000; also, the chest measurement in relation to age in both absolute and proportional numbers.

TABLE H.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS—WHITE TROOPS.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
30 inches and under.	50	43	25	118	55	33	33	23	119	499
31 inches	97	98	65	364	236	104	107	77	344	1,492
32 inches	191	152	89	941	570	300	269	231	952	3,795
33 inches	119	133	80	965	632	326	299	262	1,281	4,097
34 inches	57	44	50	598	441	269	254	196	1,303	3,212
35 inches	24	24	25	307	245	152	148	139	899	1,963
36 inches	6	8	7	131	83	65	91	83	645	1,019
37 inches	1	2	1	36	34	24	38	31	336	503
38 inches	1		1	19	13	10	10	6	200	260
39 inches and over		1	1	2	6	1	5	6	223	245
Total	546	505	344	3,481	2,315	1,284	1,254	1,054	6,302	17,085

PROPORTIONAL NUMBERS—WHITE TROOPS.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under.	91.58	85.15	72.67	33.90	23.76	25.70	26.32	21.82	18.88	29.20
31 inches	177.66	194.06	188.95	104.57	101.94	81.00	85.33	73.06	54.59	87.33
32 inches	349.82	300.99	258.72	270.33	246.22	233.64	214.51	219.16	151.06	222.12
33 inches	217.95	263.37	232.56	277.22	273.00	253.89	238.44	248.58	203.27	239.80
34 inches	104.40	87.13	145.35	171.79	190.50	209.50	202.55	185.96	206.76	188.00
35 inches	43.96	47.52	72.67	88.19	105.83	118.38	118.02	131.88	142.65	114.90
36 inches	10.99	15.84	20.35	37.63	35.85	50.62	72.57	78.75	102.35	59.64
37 inches	1.83	3.96	2.91	10.34	14.69	18.69	30.30	29.41	53.32	29.44
38 inches	1.83		2.91	5.46	5.62	7.78	7.97	5.69	31.74	15.22
39 inches and over		1.98	2.91	.57	2.59	.78	3.99	5.69	35.39	14.34
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

TABLE I.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS—COLORED TROOPS.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
30 inches and under.				4					8	12
31 inches		1		8	2	2	3	4	20	40
32 inches	6		1	8	12	8	10	4	50	99
33 inches	1	1	1	15	11	4	7	7	84	131
34 inches			1	8	17	4	8	7	74	119
35 inches		1		4	2	2	4	7	69	89
36 inches			1	1			1	2	44	49
37 inches				1		2			24	27
38 inches									8	8
39 inches and over									11	11
Total	7	3	4	49	44	22	33	31	392	585

PROPORTIONAL NUMBERS—COLORED TROOPS.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under.				81.63					20.41	20.51
31 inches		333.33		163.27	45.45	90.91	90.91	129.03	51.02	68.38
32 inches	857.14		250.00	163.27	272.73	363.64	303.03	129.03	127.55	169.23
33 inches	142.86	333.33	250.00	306.12	250.00	181.82	212.12	225.81	214.29	223.93
34 inches			250.00	163.27	386.36	181.82	242.42	225.81	188.78	203.42
35 inches		333.33		81.63	45.45	90.91	121.21	225.81	176.02	152.14
36 inches			250.00	20.41			30.30	64.52	112.24	83.76
37 inches				20.41		90.91			61.22	46.15
38 inches									20.41	13.68
39 inches and over									28.06	18.80
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The chest measurement of 42.15 per cent of white recruits was 34 inches and upward, while 2.92 per cent were 30 inches and under; the corresponding figures for colored recruits were 51.79 and 2.05 per cent, respectively, the colored candidates again showing to advantage.

The following table shows the causes of rejections among white and colored candidates examined for enlistment during the year 1906, with ratios per 1,000 rejected:

TABLE J.—*Causes of rejections, 1906.*

Cause of rejection.	Total.				White.				Colored.			
	Total.	Ratio per 1,000 examined.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000 examined.	Rejected on primary examination.	Rejected on secondary examination.	Total.	Ratio per 1,000 examined.	Rejected on primary examination.	Rejected on secondary examination.
1. Defects of vision	778	129.59	716	62	769	131.09	707	62	9	63.38	9	
2. Underweight	601	100.03	594	7	587	100.07	580	7	14	98.59	14	
3. Defective teeth	470	78.23	417	53	467	79.60	415	52	3	21.14	2	1
4. Venereal diseases	463	77.06	438	25	441	75.18	416	25	22	154.93	22	
5. Hernia	261	43.44	239	22	252	42.96	230	22	9	63.38	9	
6. Heart disease	220	36.62	185	35	214	36.48	179	35	6	42.25	1	
7. Varicocele	202	33.62	201	1	201	34.26	200	1	1	7.04	1	
8. Hemorrhoids	184	30.63	181	3	183	31.20	180	3	1	7.04	1	
9. Defects of hearing	183	30.46	142	41	183	31.20	142	41				
10. Underheight	151	25.13	151		150	25.57	150		1	7.04	1	
11. Diseases of the organs of locomotion except spinal curvature	142	23.64	131	11	137	23.35	126	11	5	35.21	5	
12. Defects of development except as shown in detail	131	21.80	124	7	129	21.99	122	7	2	14.09	2	
13. Varicose veins	128	21.31	126	2	126	21.48	124	2	2	14.09	2	
14. Curvature of spine	115	19.14	115		111	18.92	111		4	28.17	4	
15. Flat feet	114	18.97	110	4	110	18.75	106	4	4	28.17	4	
16. Diseases of the skin	110	18.31	110		109	18.58	109		1	7.04	1	
17. Chest development insufficient	110	18.31	106	4	108	18.41	104	4	2	14.09	2	
18. Injuries	102	16.98	95	7	101	17.22	94	7	1	7.04	1	
19. Diseases of the genito-urinary system (nonvenereal)	86	14.30	81	5	86	14.66	81	5				
20. Diseases of the eye except defective vision	80	13.32	51	29	80	13.64	51	29				
21. Diseases of the ear except defects of hearing	69	11.48	50	19	68	11.59	49	19	1	7.04	1	
22. Alcoholism	58	9.65	56	2	58	9.89	56	2				
23. Diseases of the respiratory system	35	5.83	29	6	35	5.97	29	6				
24. Tuberculosis	31	5.16	22	9	29	4.94	20	9	2	14.09	2	
25. Weakness of mind	28	4.66	16	12	27	4.60	15	12	1	7.04	1	
26. General diseases except as shown in detail	25	4.16	23	2	25	4.26	23	2				
27. Diseases of the nervous system except as shown in detail	22	3.66	7	15	22	3.75	7	15				
28. Overweight and obesity	17	2.83	17		16	2.73	16		1	7.04	1	
29. Physical debility	14	2.33	14		14	2.39	14					
30. Diseases of the digestive system except as shown in detail	11	1.83	11		11	1.88	11					
31. Diseases of the circulatory system except as shown in detail	10	1.66	10		10	1.70	10					
32. Overheight	4	.67	4		4	.68	4					
33. Epidemic diseases	3	.50	3		3	.51	3					
34. Causes not physical	1,050	174.77	1,050		1,000	170.47	1,000		50	352.11	50	
Total	6,008	1,000.00	5,625	383	5,866	1,000.00	5,484	382	142	1,000.00	141	1

Venereal diseases, which caused the largest proportion of rejections in 1905, dropped to fourth place as a cause of rejection during the last year. First place was taken by defects of vision, which caused 129.50 rejections per 1,000 examined, compared with 86.01 for the previous year. Heart disease, which last year caused 92.43 rejections per 1,000, fell to 36.62 in 1906, while defects of teeth, which in 1905 caused but 27.34 rejections per 1,000, rose to 78.23 for 1906.

The causes of the apparent decreased importance of venereal and heart diseases and the increased importance of defects of vision are not evident.

The reduction in the number of rejections for varicocele from 70.11 in 1905 to 33.62 in the last year was due to the change in the standard as regards this condition, and has been attended with no bad result.

The increased rejections for defective teeth was due to the temporary raising of the standard, as already noted.

SANITATION.

The high rates for malarial diseases in the army and the unpleasant fact that they have steadily increased since 1904 led to an investigation as to the thoroughness of the measures which had been taken to control these diseases in our tropical garrisons.

Effective screening against mosquitoes is one of the most necessary preventive measures, but it was found that practically nothing has been accomplished along this line in the Philippine Islands. The latest reports from that division, just received in this office, show that in the department of the Visayas not even a single hospital is screened, while the department of Luzon has but three buildings or parts of buildings thus protected. Recommendation was accordingly made from this office June 5, 1907, that all barracks, quarters, and hospitals used by American troops be thoroughly screened with 18-mesh wire gauze so as to exclude all mosquitoes. What action has been taken on this recommendation is not known.

In view of the facts that typhoid fever and other infectious diseases are often transmitted by flies and that flies breed especially in horse manure, recommendation was also made that all stables at military posts be provided with a fly-proof room or bin for storage of manure, and that the manure be so treated, handled, and disposed of as to prevent the breeding of flies therein.

BOARD FOR THE STUDY OF TROPICAL DISEASES.

This board has been actively at work since the date of last report, and, besides valuable contributions of pathological specimens to the Army Medical Museum, has attained some excellent results in the investigation of tropical diseases. The first original discovery made by the board was that of a new blood parasite, which they designated Filaria Philippinensis. This new filaria, while so far as known, not pathogenic, is of interest as being of common occurrence among natives of the Philippine Islands. Its presence in the mosquito, *Culex fatigans*, as well as its life history in that insect, has been demonstrated.

The board has also investigated the prevalence of entameba coli among healthy American soldiers and has found it among a very large percentage, and demonstrated its continued presence in the intestine for long periods without producing symptoms. The board also concludes that entameba dysenteriæ may be readily distinguished morphologically from entameba coli and is uniformly pathogenic.

After an exhaustive study of dengue the board is unable to find any organism in the blood of infected persons, but has been able to reproduce the disease in susceptible individuals by intravenous inoculation of filtered and unfiltered blood from dengue patients. It has been able to prove the transmission of the disease by a mosquito, *Culex fatigans*, and concludes that the disease is not contagious.

Yaws has been found to be quite prevalent among the natives in certain districts, and the *Treponema pertenue* was found in abundance in the lesions; the disease was also reproduced in monkeys inoculated with material from the lesions of yaws in the human subject.

UNITED STATES, CONTINENTAL, EXCLUSIVE OF ALASKA.

The average mean enlisted strength of the troops serving in the United States during the year was 40,621, of which 38,140 were white and 2,481 were colored.

This year for the first time those discharges and deaths which occurred among soldiers in the United States whose commands were in the Philippine Islands, Alaska, Hawaii, or Cuba, and who had been invalided home, were charged to the country from which the soldier was invalided.

The admission and death rates, 1,179.93 and 5.28, were lower than those for last year, 1,250.29 and 6.14, and considerably lower than the corresponding rates for 1904. The discharges for disability and constantly noneffective rates, 32.29 and 46.92, were slightly lower than for the previous year, 33.88 and 47.26, and compare favorably with the low rates of 1904.

The death rate for disease, 2.84, was the lowest of which there is any record in this office, being but slightly greater than that for external causes, 2.44.

Venereal diseases again led all others as causes of admission, discharge, and noneffectiveness, but the rates were slightly lower than for the previous year. Next in order of importance as causes of admission were diarrhea and enteritis, rate, 73.68; malaria, rate, 50.27; bronchitis, acute and chronic, rate, 48.03, and alcoholism and its results, rate, 32.27.

As a cause of death tuberculosis led, with a rate of 0.78, followed, successively, by typhoid fever, rate, 0.28; pneumonia, rate, 0.24; appendicitis, rate, 0.21, and organic disease of the heart, rate, 0.17.

The following comparison between the death rates for certain special diseases for the years 1901 and 1906 shows where the most notable improvement has taken place:

Cause of death.	1901.	1906.
Typhoid fever	0.64	0.28
Alcoholism	.26	.02
Dysentery	.42	.00
Pneumonia	.57	.24
Acute and chronic nephritis	.41	.12

As causes of noneffectiveness, after venereal diseases, followed in order tuberculosis, rheumatism, and bronchitis.

A study of the causes of death, as exhibited in the following table, shows that over 46 per cent were due to external causes, and of these 26.21 per cent were suicidal:

Deaths among troops serving in the United States, Continental, excluding Alaska, in 1906.

Causes.	Number.	Ratio per 1,000 of—	
		Mean strength.	Total deaths.
DISEASES.			
Tuberculosis (pulmonary 27, general 3, of the meninges 2, of the abdomen 1)	33	0.78	275.00
Typhoid fever	12	.28	100.00
Pneumonia	10	.24	83.33
Appendicitis	9	.21	75.00
Cancer	7	.17	58.33
Organic heart disease	7	.17	58.33
Nephritis (chronic parenchymatous 1, acute parenchymatous 2, chronic interstitial 1, uremic convulsions 1)	5	.12	41.67
Peritonitis	3	.07	25.00
Hepatic abscess	2	.05	16.67
Syphilis, tertiary	2	.05	16.67
Septicemia	2	.05	16.67
Diabetes	2	.05	16.67
Cerebral hemorrhage	2	.05	16.67
Endocarditis, acute	2	.05	16.67
Intestinal obstruction	2	.05	16.67
Congestive chill	1	.02	8.33
Influenza	1	.02	8.33
Erysipelas	1	.02	8.33
Cerebrospinal meningitis	1	.02	8.33
Hydrophobia	1	.02	8.33
Acute gonorrheal endocarditis	1	.02	8.33
Acute dilatation of heart due to acute alcoholism	1	.02	8.33
Epilepsy	1	.02	8.33
Abscess of brain due to chronic otitis media	1	.02	8.33
Acute pericarditis	1	.02	8.33
Aneurism, arch of aorta	1	.02	8.33
Chronic bronchitis	1	.02	8.33
Broncho-pneumonia	1	.02	8.33
Empyema, acute	1	.02	8.33
Acute yellow atrophy of liver	1	.02	8.33
Pancreatitis, hemorrhagic	1	.02	8.33
Pyelitis, acute	1	.02	8.33
Unknown (found dead 2, suddenly on pass 1)	3	.07	25.00
Total for disease	120	2.84	1,000.00
EXTERNAL CAUSES.			
Gunshot wound (suicidal 19, accidental 6, homicidal 5, by guard 3, by police 1)	34	.80	330.10
Drowning (accidental 20, suicidal 2)	22	.52	213.59
Crushing (by railroad train 7, electric cars 3, by gun carriage 1, kicked by horse 2, fall from window 1)	14	.33	135.92
Fracture of skull 10, of spine 2 (by falling 7, by cars 2, by falling earth 1, homicidal 1, caught in stable door 1)	12	.28	116.50
Poisoning acute (wood alcohol 5, narcotic, suicidal 2; accidental 1, carbolic acid, suicidal 1; aconite, suicidal 1)	10	.24	97.09
Asphyxiation (by illuminating gas, accidental 2, suffocation while drunk 1)	3	.07	29.13
Sunstroke	2	.05	19.42
Freezing	2	.05	19.42
Incised wound, suicidal	1	.02	9.71
Punctured wound, suicidal	1	.02	9.71
Traumatic rupture of liver, accidental	1	.02	9.71
Burn, accidental	1	.02	9.71
Total for external causes	103	2.44	1,000.00
Grand total	223	5.28	.....

Suicides, 27; homicides, 6.

Deaths of soldiers who were invalided home.

	From the Philippines.	From Honolulu.	[illegible] transport.	Total.
Tuberculosis, pulmonary	7			7
Cancer	1			1
Nephritis, chronic parenchymatous	1			1
Hepatic abscess	1			1
Syphilis, tertiary		1		1
Concussion of brain and spinal cord (by fall)			1	1
Total	10	1	1	12

PREVALENCE OF SPECIAL DISEASES.

TYPHOID FEVER.

There was a decided increase in the number of admissions for typhoid fever in 1906, as compared with 1905, the respective ratios being 5.66 and 3.57; the death ratio, however, was slightly decreased, 0.28, against 0.30 for 1905. The case mortality fell from 8.5 per cent to 5.2 per cent.

The camps of instruction were responsible for the increased admission rate, over 40 per cent of all admissions having come from that source; Camp Benjamin Harrison gave 35 admissions, at American Lake there were 20 admissions, and at Chickamauga Park 18 admissions. Typhoid fever appeared in every camp, though there was only one case from the camp at Austin, Tex. The sanitary conditions in the camps were unusually good, and the chief surgeons concerned generally reported that the infection occurred during the marches to the camps as a result of the soldiers drinking impure water. Forts Snelling and Oglethorpe had the largest number of admissions, 18 and 11, respectively, and in each instance the infection was believed to have been brought from a camp of instruction.

The following comparative table shows the more important changes in the number of admissions at posts for 1905–6:

Post.	1905.	1906.
Fort Myer	20	1
Columbus Barracks	13	7
Fort Logan	9	4
Whipple Barracks	9	0
Washington Barracks	6	[illegible]
Fort Snelling	3	18
Fort Oglethorpe	0	11
Fort Riley	3	8
Fort Schuyler	0	7
Fort Leavenworth	[illegible]	[illegible]

The decreased rates at Fort Myer and Washington Barracks may have been connected with the improvement in the character of the water supply of the city of Washington; the increased rate at Fort Leavenworth may be explained by the difficulties with the sewage purification plant; in the other cases nothing has been reported showing the cause of the change.

Chart showing the admission and death ratios per thousand of mean strength for typhoid fever by years since 1897 for the United States proper.

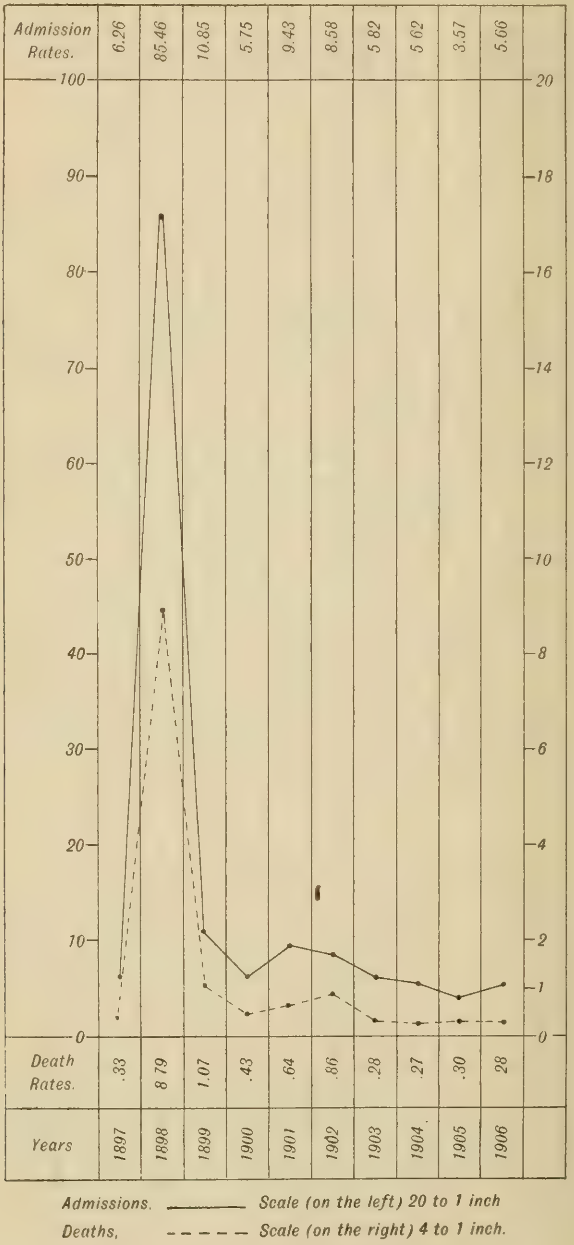
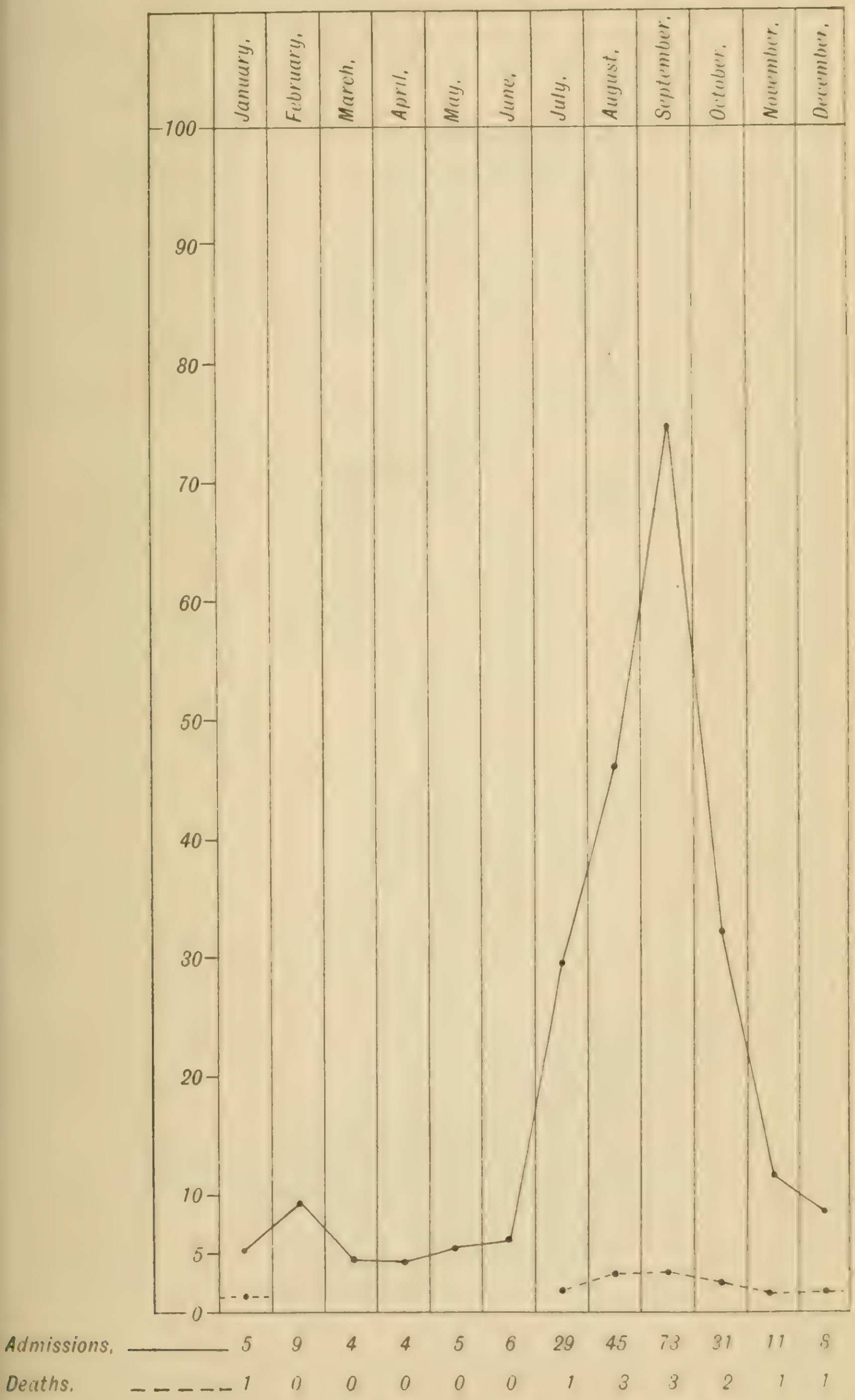


Chart showing the admissions and deaths for typhoid fever by months in the United States proper.



The following statement shows the distribution of typhoid fever in the United States during the year:

Typhoid fever at military stations in the United States, 1906.

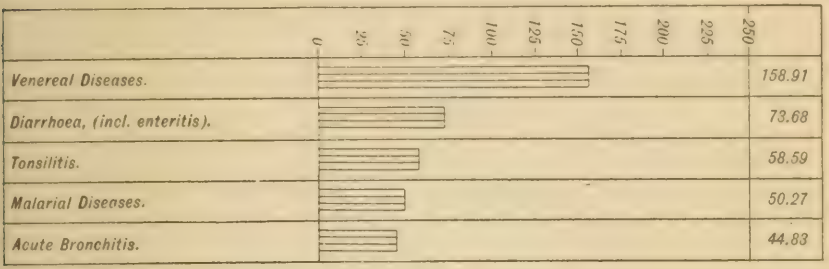
Station.	Admitted.	Days treated.	Constantly sick.	Died.
Camp of instruction, Fort Benjamin Harrison, Ind.	35	307	0.84	1
Camp of instruction, American Lake, Wash	20	137	.38	....
Fort Snelling, Minn	18	1,364	3.74	....
Camp of instruction, Chickamauga, Ga	18	80	.22	....
Fort Oglethorpe, Ga	11	2,147	5.88	3
Camp of instruction, Fort Riley, Kans.	10	18	.05	....
Fort Riley, Kans	8	921	2.52	....
Fort Schuyler, N. Y	7	514	1.41	....
Camp of instruction, Fort D. A. Russell, Wyo	7	83	.23	....
Washington Barracks, D. C. (post)	6	314	.86	....
Columbus Barracks, Ohio	5	343	.94	....
Fort Leavenworth, Kans. (post)	4	352	.96	....
Fort Logan, Colo.	4	401	1.10	....
Alcatraz Island, Cal	4	81	.22	....
Field, Department of California	4	86	.24	....
Camp of instruction, Mount Gretna, Pa.	4	20	.05	....
Fort H. G. Wright, N. Y	3	190	.52	....
Fort Monroe, Va	3	275	.75	....
Watervliet Arsenal, N. Y	3	74	.20	....
Fort Sheridan, Ill.	3	384	1.05	1
Fort McPherson, Ga	3	241	.66	....
Presido, San Francisco, Cal. (post)	3	6	.02	....
Fort Ethan Allen, Vt	2	121	.33	....
Frankford Arsenal, Pa	2	65	.18	....
Fort Wood, N. Y.	2	4	.01	....
Fort Thomas, Ky	2	229	.63	....
Field, Department of Dakota	2	2	.01	....
Fort Caswell, N. C	2	133	.36	....
Key West Barracks, Fla	2	97	.27	....
Field, Department of the Gulf	2	6	.02	....
Jefferson Barracks, Mo	2	111	.30	....
Fort Sam Houston, Tex.	2	89	.24	1
Fort McDowell, Cal. (recruits and casuals)	2	8	.02	....
Fort Hancock, N. J	1	36	.10	....
Fort Jay, N. Y	1	176	.48	....
Madison Barracks, N. Y	1	34	.09	1
Fort Myer, Va.	1	181	.50	....
Fort Slocum, N. Y	1	100	.27	....
Fort Strong, Mass.	1	38	.10	....
Field, Department of the East	1	1	.003	....
Fort Wayne, Mich.	1	12	.03	1
Fort Meade, S. Dak.	1	63	.17	....
Fort Yellowstone, Wyo	1	45	.12	....
Fort Apache, Ariz.	1	26	.07	....
Fort Douglas, Utah	1	48	.13	....
Fort Duchesne, Utah.	1	3	.01	....
Fort Barrancas, Fla.	1	13	.04	1
Fort Clark, Tex	1	65	.18	....
Fort Logan H. Roots, Ark	1	53	.15	....
Fort McDowell, Cal. (post)	1	7	.02	....
Presidio of Monterey, Cal	1	78	.21	....
Fort Casey, Wash.	1	102	.28	....
Fort Lawton, Wash.	1	73	.20	....
Vancouver Barracks, Wash	1	1,009	2.76	3
Fort Walla Walla, Wash	1	80	.22	....
Camp of instruction, Austin, Tex	1	3	.01	....
Presidio, San Francisco, Cal. (general hospital)	1	982	2.69	....
Washington Barracks, D. C. (general hospital)	1	347	.95	....

UNDETERMINED FEVERS.

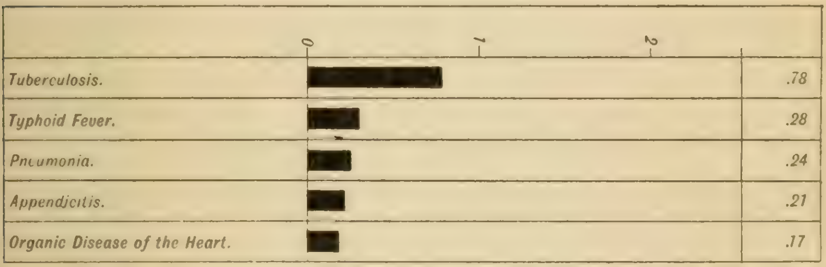
There was a slight advance in the ratio of these fevers from 6.91 to 7.73 admissions per 1,000.

Chart showing the relative admission, death, discharge, and noneffective ratios per thousand of mean strength for the five diseases causing the highest rates in the United States proper.

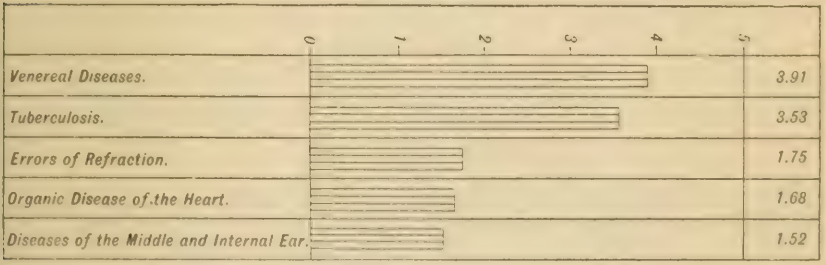
ADMISSIONS



DEATHS.



DISCHARGES.



NONEFFECTIVE.

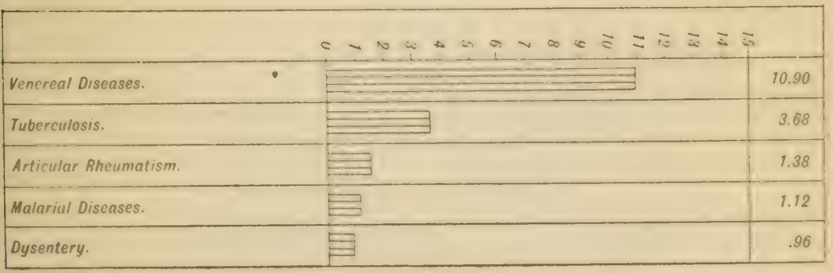
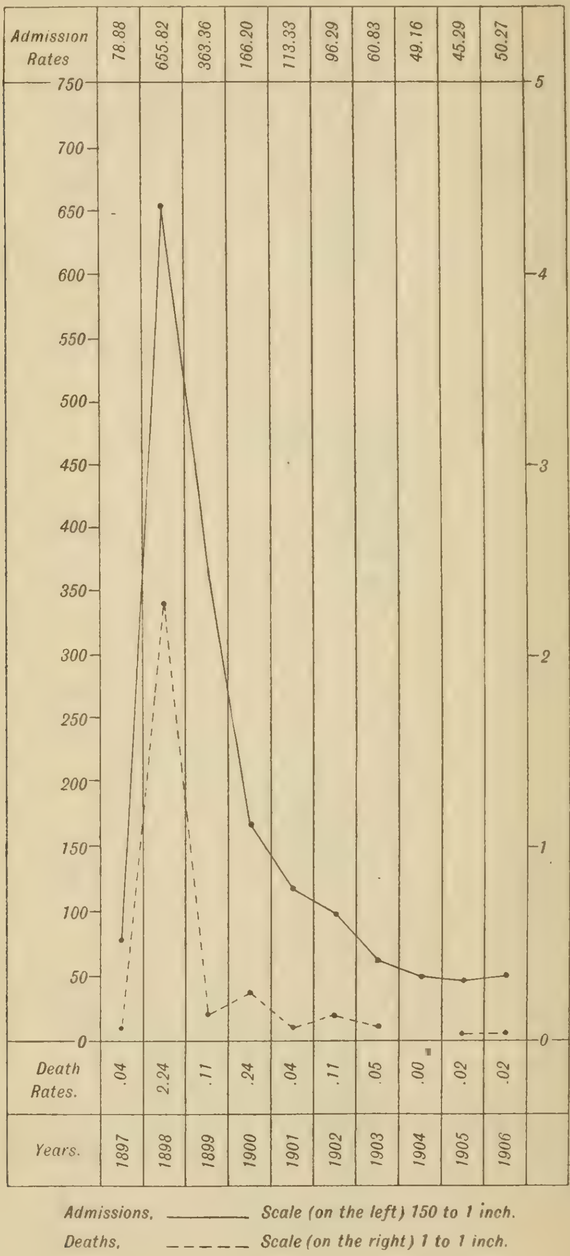


Chart showing the relative admission and death ratios per thousand of mean strength by years since 1897 for malarial fevers in the United States proper.



MALARIAL DISEASES.

The admission rate for this class of diseases was 50.27, compared with 45.29 for the previous year and 49.16 for 1904. The figures are shown in detail in the following statement:

	Ratios per 1,000 of mean strength.											
	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White	Colored.	Total.
Malarial intermittent fever:												
Year of 1906	49.19	18.53	47.32	......	......	......	......	......	......	0.97	0.39	0.93
Year of 1905	44.09	16.52	41.95	......	......	......	......	......	......	.89	.25	.84
Year of 1904	45.37	18.58	43.47	......	......	......	......	......	......	.81	.34	.78
Malarial remittent or continued fever:												
Year of 1906	1.86	.40	1.78	......	......	......	......	......	......	.10	.01	.09
Year of 1905	1.77	......	1.63	......	......	......	0.03	......	0.02	.06	......	.06
Year of 1904	4.07	2.24	3.94	......	......	......	......	......	......	.18	.17	.18
Pernicious malarial fever:												
Year of 1906	.08	......	.07	......	......	......	.03	......	.02	.01	......	.01
Year of 1905	.31	......	.28	......	......	......	......	......	......	.005	......	.005
Year of 1904	.02	......	.02	......	......	......	......	......	......	.003	......	.003
Malarial cachexia:												
Year of 1906	1.07	1.21	1.08	0.05	......	0.05	......	......	......	.08	.15	.09
Year of 1905	1.54	......	1.42	.08	......	.07	......	......	......	.13	......	.12
Year of 1904	1.84	.32	1.73	......	......	......	......	......	......	.14	.03	.13
Total malarial diseases:												
Year of 1906	52.20	20.56	50.27	.05	......	.05	.03	......	.02	1.16	.55	1.12
Year of 1905	47.71	16.53	45.29	.08	......	.07	.03	......	.02	1.09	.24	1.02
Year of 1904	51.30	21.15	49.16	......	......	......	......	......	......	1.13	.54	1.09

YELLOW FEVER.

No case of yellow fever occurred at any military post in the United States during the year.

ERUPTIVE FEVERS.

Smallpox and measles showed an increased admission rate for the year, 0.30 and 6.35, respectively, compared with 0.16 and 5.32, the corresponding figures for the previous year, and 0.32 and 17.98 for 1904. The admission rate for smallpox was nearly twice as great as for 1905; there were no fatalities.

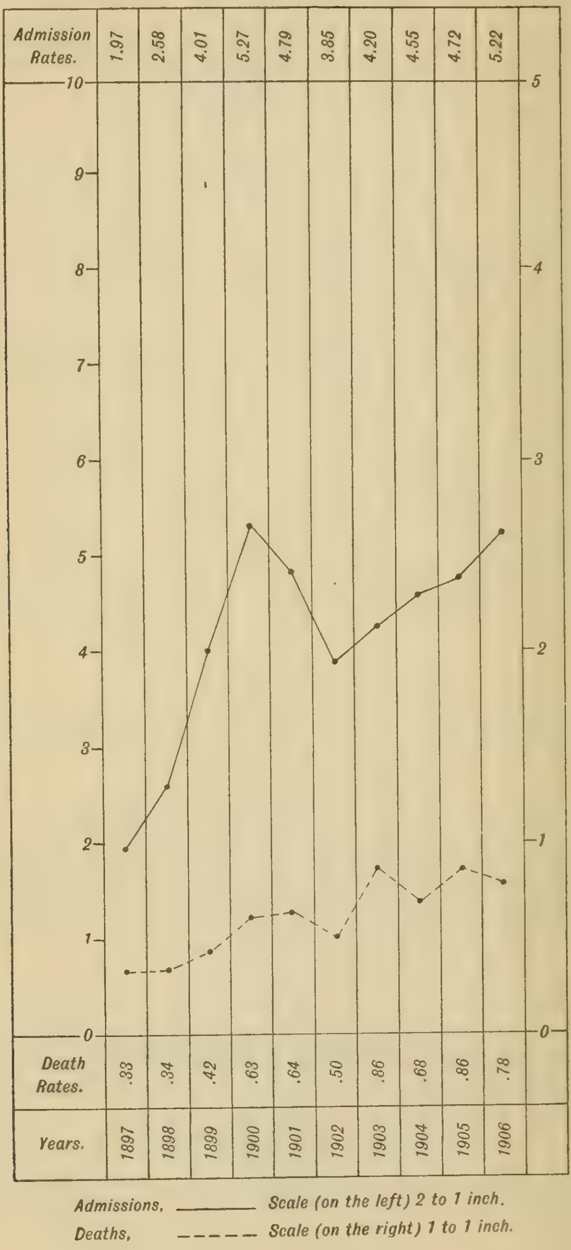
DYSENTERY.

The admission rate for dysentery was 5.96, compared with 5.23 for 1905 and 8.49 for 1904; more than one-half of the infections were of the amebic type. There was no death from this disease.

CEREBROSPINAL MENINGITIS.

One case of cerebrospinal meningitis occurred during the past year and resulted fatally.

Chart showing the relative admission and death ratios per thousand of mean strength for tuberculosis in the United States proper by years since 1897.



TUBERCULOSIS.

All the ratios for tuberculosis were slightly higher than for 1905. The admission rates for the two years were 5.22 and 4.72 respectively.

VENEREAL DISEASES.

There was some improvement in the rate for venereal diseases in the United States. The admission rate fell from the abnormally high figure of 178.72 per 1,000 for 1905 to 158.91 for the past year. The details are given in the following statement:

	Ratios per 1,000 of mean strength.											
	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Noneffective.		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
Gonorrhea, including other venereal:												
Year 1906......	106.11	91.49	105.21	1.11	0.40	1.07	0.03	......	0.02	6.29	4.48	6.18
Year 1905......	120.12	97.05	118.31	1.25	1.80	1.29	.03	......	.02	6.46	4.08	6.26
Year 1904......	108.60	86.83	107.05	1.10	2.56	1.21	......	......	......	5.79	3.56	5.63
Chancroids:												
Year 1906......	26.01	32.65	26.41	.03	.40	.05	......	......	......	1.69	2.48	1.73
Year 1905......	30.27	31.85	30.39	.05	......	.05	......	......	......	1.88	2.08	1.90
Year 1904......	27.73	30.12	27.90	.07	......	.07	......	......	......	1.74	1.65	1.74
Syphilis:												
Year 1906......	27.34	26.20	27.28	2.90	1.19	2.79	.03	0.40	.05	3.02	2.40	2.98
Year 1905......	30.40	25.54	30.02	3.37	2.70	3.32	......	.30	.02	2.93	2.34	2.88
Year 1904......	29.59	13.78	28.47	3.92	1.60	3.75	.05	......	.05	2.59	.86	2.46
Total venereal:												
Year 1906......	159.47	150.34	158.91	4.03	1.98	3.91	.05	.40	.07	11.00	9.36	10.90
Year 1905......	180.78	154.44	178.72	4.66	4.51	4.66	.03	.30	.04	11.27	8.50	11.05
Year 1904......	165.93	130.73	163.43	5.10	4.17	5.02	.05	......	.05	10.12	6.07	9.83

LEPROSY.

The case of leprosy which has been under treatment since early in the year 1903 is reported to have somewhat improved recently both as regards general condition and the local lesions.

ALCOHOLISM.

The high admission rate of 30.22 per 1,000 men recorded in 1905 for alcoholism was increased to 32.27 in 1906; the other rates remained about the same, except the death rate, which was greatly diminished. This office concurs in the opinion expressed by most medical officers of the army that the abolition of the sale of beer in post exchanges has had much to do with the increase of venereal diseases and alcoholism in the army by driving the soldiers to disreputable resorts outside of the post and beyond the control of the post authorities.

INSANITY.

There was a further decrease in the rate for insanity compared with the previous year, the figures being 1.33 per 1,000 for 1906 and 1.61 for 1905.

Chart showing the relative admission and death ratios per thousand of mean strength for alcoholism in the United States proper by years since 1897.

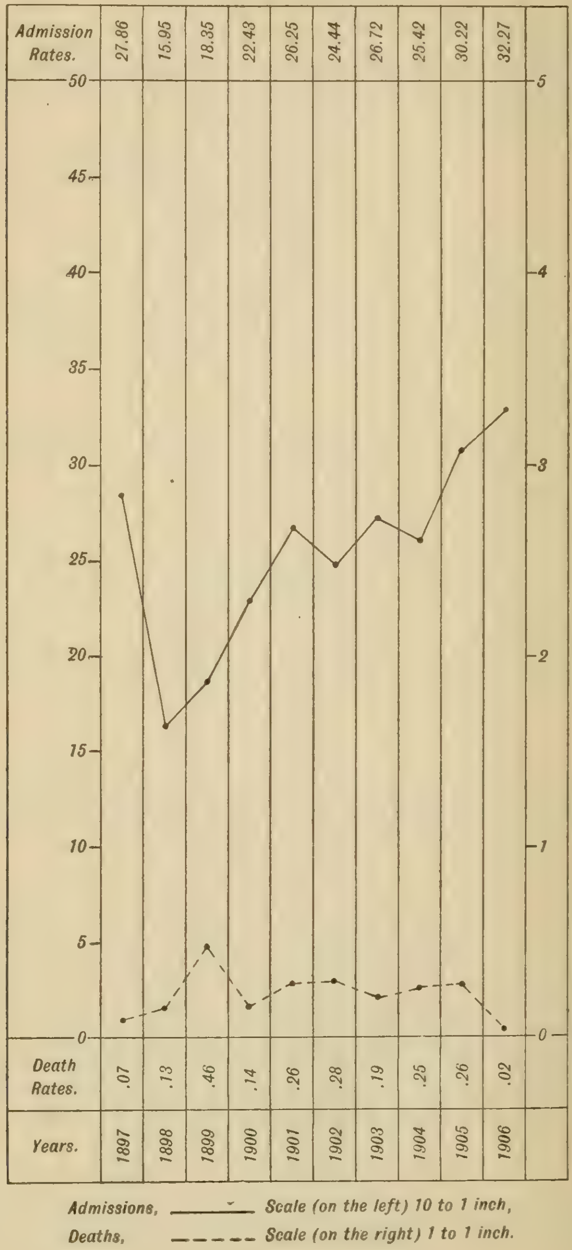


Chart showing the relative admission ratios per thousand of mean strength for insanity in the United States proper by years since 1897.

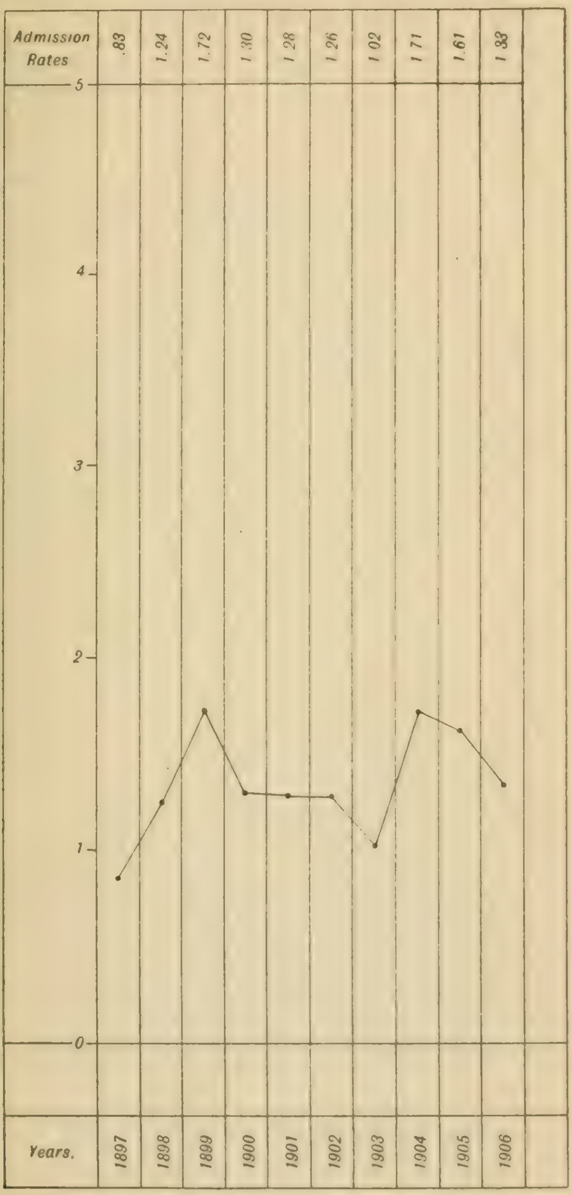
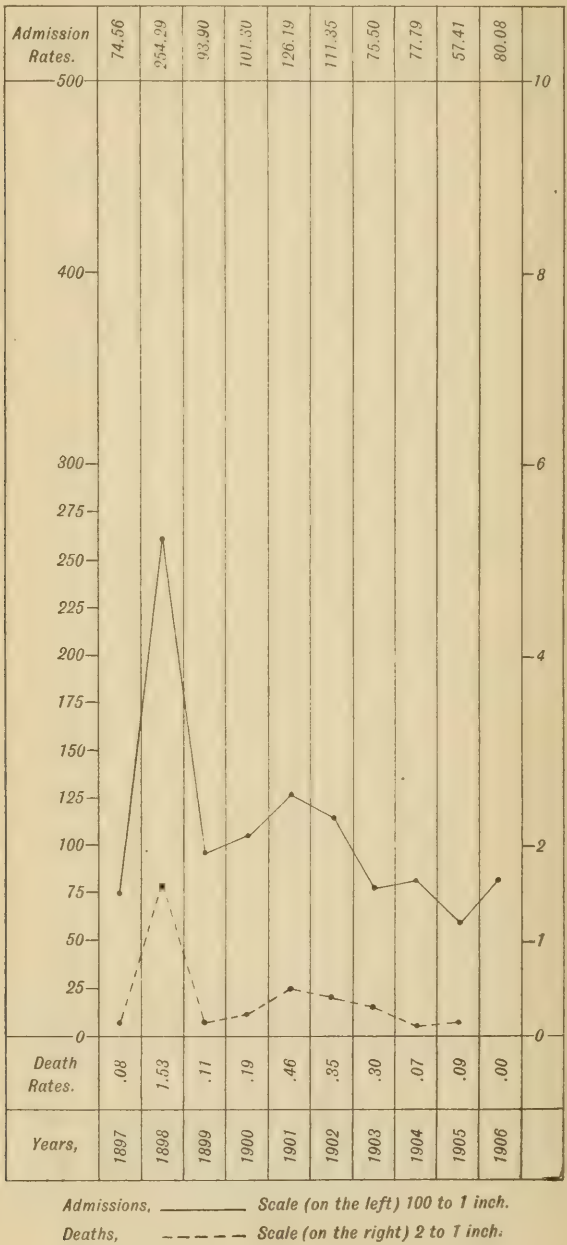


Chart showing the relative admission and death rates per thousand of mean strength for diarrheal diseases (including cholera nostras, dysentery, diarrhea, and enteritis) for the United States proper by years since 1897.



PNEUMONIA

The admission and death ratios for pneumonia showed vast improvement compared with the figures for the two years previous. The case mortality for the year was but 10.5 per cent.

DIARRHEA AND ENTERITIS.

The admission ratio for these diseases was increased to 73.68 compared with 51.80 for the previous year, and 69.07 for 1904.

HEPATIC ABSCESS.

The admission rate for this disease was 0.17 per 1,000 of mean strength, compared with 0.21 for the previous year.

INFLUENCE OF STATION.

As during the previous year, all the rates except for deaths were highest in the Department of the Lakes. The discharge for disability rate was particularly high, being nearly three times as great as that for the United States total and six times as great as that for the Department of California. The high rates in the Department of the Lakes may be accounted for in a measure by the fact that at the large recruiting depot at Columbus Barracks many recruits are held on sick report for long periods to determine their fitness for service and that many of them are finally discharged because of failure to meet the physical requirements.

The lowest admission rate was in the Department of the Missouri; the lowest death, discharge, and noneffective rates in the Department of California.

The following table shows the relative prevalence of certain special diseases by departments. It will be observed that the Department of the Lakes was notable as having the highest rates for gonorrhea, measles, mumps, and rheumatism; the Department of Texas having the highest rates for malaria and tuberculosis and the lowest for rheumatism and bronchitis; the Department of the Missouri as having the lowest rate for influenza; the Department of Dakota having the highest rates for typhoid fever and syphilis and the lowest for tuberculosis and pleuritis; the Department of the Colorado as having the highest rate for influenza and lowest for gonorrhea; the Department of California having the highest rates for bronchitis and dysentery; the Department of the Gulf as having the lowest rate for pneumonia; the Department of the East the lowest rate for dysentery; and the Department of the Columbia the highest rates for pneumonia and pleuritis and the lowest for malaria, typhoid fever, and syphilis.

Admissions, losses, and noneffectiveness, United States, by departments.

	Mean strength.	Ratio per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Department of the East:																	
White	11,515	1,170.39	702.82	23.36	19.28	3.56	1.48	26.92	20.76	36.59	28.75	18.75	14.94	13.35	11.41	6.84	9.74
Department of the Lakes:																	
White	2,165	1,472.52	962.59	87.30	77.60	5.08	2.31	92.38	79.91	61.72	46.90	39.36	26.79	22.53	15.30	14.37	14.92
Colored	55	1,381.82	690.91	....	....	18.18	18.18	18.18	18.18	51.01	49.66	17.38	16.94	18.62	13.47	6.35	9.18
Total	2,220	1,470.27	955.86	85.14	75.68	5.41	2.25	90.55	77.93	61.45	46.97	38.82	26.54	22.43	15.26	14.17	14.82
Department of the Missouri:																	
White	4,970	1,030.78	646.68	18.31	12.68	4.83	1.81	23.14	14.49	39.57	34.19	21.16	18.62	14.44	14.01	7.72	11.94
Colored	1,551	885.88	491.30	9.67	5.16	7.74	4.51	17.41	9.67	31.04	25.10	14.45	12.45	11.33	12.79	5.28	10.74
Total	6,521	996.32	609.72	16.26	10.89	5.52	2.45	21.78	13.34	37.54	32.02	19.56	17.15	13.70	13.75	7.14	11.71
Department of Dakota: White	1,836	1,208.61	745.64	24.51	11.98	4.36	1.09	28.87	13.07	49.13	44.44	25.26	23.51	17.93	14.84	9.22	12.37
Department of the Colorado:																	
White	1,600	1,086.25	696.87	39.37	30.62	4.37	1.25	43.74	31.87	37.95	32.23	22.12	19.13	13.85	12.75	8.07	11.58
Department of the Gulf:																	
White	3,484	1,246.27	709.82	17.51	9.76	6.89	2.87	24.40	12.63	45.15	36.07	22.65	18.03	16.48	13.22	8.27	11.65
Department of Texas:																	
White	2,531	1,403.40	671.67	61.24	49.39	2.37	1.58	63.61	50.97	47 27	36.60	19.85	16.78	17.25	12.29	7.25	10.79
Colored	654	871.56	535.17	12.23	9.17	10.70	4.59	22.93	13.76	32.49	28.49	15.20	13.50	11.86	13.61	5.55	10.37
Total	3,185	1,294.19	643.64	51.18	41.13	4.08	2.20	55.26	43.33	44.23	34.93	18.90	16.11	16.15	12.48	6.90	10.72

Department of California:																	
White	3,841	1,176.26	712.84	14.84	9.11	1.82	1.04	16.66	10.15	25.28	14.94	13.05	8.42	9.23	7.84	4.76	6.68
Department of the Columbia:																	
White	2,643	1,063.94	630.34	23.45	16.27	7.19	4.16	30.64	20.43	42.80	36.16	22.77	19.91	15.62	14.68	8.31	13.18
Camps of instruction:																	
White	3,086	1,358.07	1,010.05	.97	.97	4.86	.97	5.83	1.94	18.72	9.84	11.80	6.15	6.83	5.03	4.31	4.27
Colored	215	800.00	479.07	....	....	....	....	....	....	10.22	5.31	5.01	3.02	3.73	4.66	1.83	3.82
Total	3,301	1,321.72	975.46	.91	.91	4.54	.91	5.45	1.82	18.17	9.55	11.36	5.95	6.63	5.02	4.15	4.25
General hospitals: White and colored	475	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
United States (continental) excluding Alaska:																	
White	38,140	1,199.16	733.46	33.32	26.21	4.94	2.49	38.26	28.70	47.55	39.31	27.86	23.63	17.35	14.47	10.17	13.86
Colored	2,481	884.32	505.84	16.22	12.66	10.68	6.72	26.90	19.38	37.35	32.11	21.06	19.15	13.63	15.42	7.69	15.19
Total	40,621	1,179.93	719.55	32.29	25.40	5.28	2.75	37.57	28.15	46.92	38.87	27.44	23.36	17.13	14.52	10.02	13.92

Ratios for discharges and deaths are based on mean strength, "present and absent:" White, 39,711; colored, 2,528; total, 42,239.

Special diseases by departments.

	Ratios per 1,000 of mean strength.											
	Department of the East.	Department of the Gulf.	Department of the Lakes.	Department of the Missouri.	Department of Dakota.	Department of Texas.	Department of the Colorado.	Department of California.	Department of the Columbia, excluding Alaska.	Camps of instruction.	General hospitals United States.	Total.
Mean strength	11,515	3,484	2,220	6,521	1,836	3,185	1,600	3,841	2,643	3,301	475	40,261
Alkoholismus acutus (including delirium tremens)	49.85	24.11	20.27	16.87	32.68	14.44	38.12	31.76	35.94	6.97	......	30.58
Bronchitis acuta	61.92	56.54	36.49	29.13	49.56	20.09	41.87	64.57	37.45	15.45	......	44.83
Cholera Asiatica	......	......	......	......	......	......	......	......	......	......	......	......
Cholera nostras	.35	......	.45	.15	......	......	.62	.52	......	2.73	......	.44
Diphtheria et croup	.26	.57	1.35	.31	.54	1.57	.62	......	......	......	......	.42
Dysenteria	2.08	8.90	4.96	2.76	6.54	4.71	8.12	12.76	4.92	14.84	......	5.95
Erysipelas	.26	......	3.60	.46	1.09	.31	3.75	.26	1.51	......	......	.71
Febris intermittens (malaria)	49.41	31.29	40.09	43.09	76.80	95.13	20.00	37.75	18.92	56.04	......	47.32
Febris recurrens	......	......	......	......	......	......	......	......	......	......	......	......
Gonorrhea	93.96	136.34	174.32	86.95	114.92	158.56	54.37	89.30	116.16	79.67	......	105.21
Hernia	6.43	6.31	18.02	3.53	3.81	6.59	15.00	3.38	4.92	5.45	......	6.53
Influenza	22.06	33.01	10.36	6.29	11.44	35.16	74.37	29.94	45.40	.30	......	22.94
Insolatio (Hitzschlag, coup de chaleur)	......	.29	......	......	......	......	......	......	......	.61	......	.07
Meningitis cerebro-spinalis epidemica	.09	......	......	......	......	......	......	......	......	......	......	.02
Morbilli	7.29	2.58	31.98	2.91	7.08	......	......	13.02	......	3.03	......	6.35
Parotitis epidemica	7.99	8.04	98.65	32.81	48.47	16.01	10.62	10.15	34.81	1.21	......	20.93
Pleuritis	3.91	3.16	3.60	3.37	1.09	2.51	3.12	3.12	4.54	3.94	......	3.47
Pneumonia crouposa sive lobaris	2.26	1.44	5.41	1.84	2.72	1.88	1.87	2.60	4.54	.61	......	2.34
Rheumatismus articulorum	15.11	13.78	24.78	23.92	24.51	8.16	24.37	17.70	12.86	20.60	......	17.99
Scarlatina	.17	......	......	......	......	......	......	......	......	......	......	.05
Scorbutus	......	......	......	......	......	......	......	......	......	......	......	......
Syphilis	28.92	31.29	39.19	22.85	41.39	34.54	25.00	23.43	20.05	15.75	......	27.28
Trachoma	1.13	.29	1.35	......	.54	.31	......	......	1.13	......	......	.57
Tuberculosis pulmonum	4.08	4.31	3.60	3.37	1.09	6.91	2.50	4.17	4.54	1.82	......	4.51
Tuberculosis ceterorum organorum	.69	.57	.45	.77	1.63	.31	......	.52	1.51	.61	......	.71
Typhus abdominalis	3.04	6.03	4.96	1.99	11.44	1.88	4.37	3.91	1.51	28.78	......	5.66
Typhus exanthematicus	......	......	......	......	......	......	......	......	......	......	......	......
Ulcus molle (including adenitis venerea)	18.41	51.67	41.44	21.16	24.51	59.65	23.75	17.70	8.32	25.14	......	26.41
Variola	.17	.29	.45	.92	......	.63	......	......	......	......	......	.30
Morbi auris	14.50	7.46	17.12	4.29	7.62	6.91	8.12	11.72	6.43	4.54	......	9.58
Morbi cordis	3.91	2.01	4.96	1.38	5.45	5.34	3.12	2.86	3.78	1.51	......	3.37
Morbi cutis	20.93	21.81	29.73	13.49	29.41	23.86	11.25	31.76	15.51	22.11	......	21.21
Morbi mentis	1.04	.86	1.35	.61	.54	2.83	.62	3.12	.38	1.21	......	1.33
Morbi oculi	21.10	9.76	40.09	19.47	15.25	32.65	16.87	30.46	14.38	12.72	......	21.34
Morbi systemat. urin. et sexual, excl. venerie et syphilis	13.46	16.65	19.82	19.47	19.06	13.81	15.62	16.14	12.86	12.72	......	15.71

DEPARTMENT OF THE EAST.

The post having the highest noneffective rate in this department was Fort Washington, 64.95, and the lowest Fort Williams, 20.09. The cause of the high noneffective rate at Fort Washington was malarial diseases.

DEPARTMENT OF THE GULF.

Fort Oglethorpe showed the highest noneffective rate, 77.43, of any post in this department; venereal diseases, typhoid fever, and injuries caused most of the noneffectiveness.

DEPARTMENT OF THE MISSOURI.

Fort Des Moines had the lowest admission rate, and excluding alcoholism, venereal diseases, and injuries, the lowest noneffective rate of posts in the department. The highest noneffective rate was recorded at Fort Riley, venereal diseases and injuries being the leading causes. The health conditions for the entire department remained practically the same as during the previous year. Diseases of the respiratory tract and the digestive system were responsible for the largest number of admissions to sick report.

DEPARTMENT OF THE COLUMBIA.

A number of cases of typhoid fever believed to have been contracted while at target practice at Touchet, Wash., materially increased the sick rates of the troops serving in this department; all the rates were slightly higher than during the previous year. Vancouver Barracks showed the highest noneffective rate, while Fort Flagler had the lowest for the year.

DEPARTMENT OF THE COLORADO.

Fort Logan had the highest admission rate and the highest noneffective rate of the posts in this department. Fort Huachuca had the lowest noneffective rate. Typhoid fever and venereal diseases contributed largely to the high rates at Fort Logan.

DEPARTMENT OF TEXAS.

Fort Bliss had the lowest noneffective rate and Fort Clark the highest during the year. The health of troops stationed in this department improved considerably compared with the previous year, the sick rates being less than for several years past.

DEPARTMENT OF THE LAKES.

The health of the command compares favorably with that of previous years. Fort Thomas had the highest admission and noneffective rates of the posts in the department, attributable largely to venereal diseases and injuries, while Fort Wayne reported the lowest noneffective rate.

DEPARTMENT OF DAKOTA.

The highest noneffective rate was recorded at Fort Snelling and the lowest at Fort Meade. Fort Meade also showed the lowest admission rate for the year. A number of typhoid fever cases, together with venereal diseases and injuries, produced the high rate at Fort Snelling.

DEPARTMENT OF CALIFORNIA.

Excluding injuries, venereal diseases, and alcoholism, Fort Baker showed the highest admission rate of posts in this department, while the lowest noneffective rate was recorded at the Presidio, San Francisco. The highest noneffective rate was also recorded at Fort Baker. The health of the troops throughout the year was excellent.

The following tables are arranged to show the posts having the highest and lowest ratios for admissions and noneffectiveness in the United States as a whole:

Posts having the lowest admission and noneffective rates.

		Ratios per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
	Mean strength.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
LOWEST ADMISSION RATES FROM ALL CAUSES.																	
Fort Des Moines, Iowa	484	574.38	258.26	16.53	10.33	4.13	....	20.66	10.33	24.73	24.03	7.21	7.09	9.02	15.71	2.63	10.19
Fort Meade, S. Dak	356	589.89	294.94	5.62	2.81	2.81	....	8.43	2.81	16.11	13.13	7.04	5.87	5.88	9.97	2.57	8.71
Fort Hancock, N. J	429	659.67	372.96	9.32	6.99	....	....	9.32	6.99	23.00	20.80	9.43	8.72	8.40	12.73	3.44	9.23
Fort Douglas, Utah	395	678.48	422.78	12.66	7.59	7.59	2.53	20.25	10.12	24.23	22.82	12.88	12.31	8.85	13.04	4.70	11.20
Fort Niobrara, Nebr	283	717.31	381.63	3.53	....	10.60	10.60	14.13	10.60	22.33	20.40	13.84	13.10	8.15	11.36	5.05	13.24
LOWEST ADMISSION RATES, EXCLUDING INJURIES, ETC.																	
Fort Des Moines, Iowa	484	574.38	258.26	16.53	10.33	4.13	....	20.66	10.33	24.73	24.03	7.21	7.09	9.02	15.71	2.63	10.19
Fort Meade, S. Dak	356	589.89	294.94	5.62	2.81	2.81	....	8.43	2.81	16.11	13.13	7.04	5.87	5.88	9.97	2.57	8.71
Fort Hancock, N. J	429	659.67	372.96	9.32	6.99	....	....	9.32	6.99	23.00	20.80	9.43	8.72	8.40	12.73	3.44	9.23
Fort Niobrara, Nebr	283	717.31	381.63	3.53	....	10.60	10.60	14.13	10.60	22.33	20.40	13.84	13.10	8.15	11.36	5.05	13.24
Plattsburg Barracks., N. Y	414	835.75	398.55	24.15	16.91	....	....	24.15	16.91	24.51	20.03	12.26	10.20	8.95	10.71	4.48	11.23
LOWEST NONEFFECTIVE RATES FROM ALL CAUSES.																	
Fort Meade, S. Dak	356	589.89	294.94	5.62	2.81	2.81	....	8.43	2.81	16.11	13.13	7.04	5.87	5.88	9.97	2.57	8.71
Fort Bliss, Tex	283	770.32	554.77	10.60	10.60	14.13	7.07	24.73	17.67	19.70	18.82	13.72	13.30	7.19	9.33	5.01	9.03
Fort Williams, Me	204	779.41	500.00	14.71	14.71	....	....	14.71	14.71	20.09	19.11	12.06	11.59	7.33	9.41	4.40	8.80
Fort Huachuca, Ariz	233	845.49	459.23	....	....	....	....	....	....	20.48	17.97	9.00	7.82	7.48	8.84	3.28	7.15
Presidio of San Francisco, Cal	1,214	1,288.30	710.87	10.71	7.41	....	....	10.71	7.41	20.51	4.62	8.71	2.06	7.48	5.81	3.18	4.47
LOWEST NONEFFECTIVE RATES, EXCLUDING INJURIES, ETC.																	
Fort Meade, S. Dak	356	589.89	294.94	5.62	2.81	2.81	....	8.43	2.81	16.11	13.13	7.04	5.87	5.88	9.97	2.57	8.71
Fort Des Moines, Iowa	484	574.38	258.26	16.53	10.33	4.13	....	20.66	10.33	24.73	24.03	7.21	7.09	9.02	15.71	2.63	10.19
Presidio of San Francisco, Cal	1,214	1,288.30	710.87	10.71	7.41	....	....	10.71	7.41	20.51	4.62	8.71	2.06	7.48	5.81	3.18	4.47
Fort Huachuca, Ariz	233	845.49	459.23	....	....	....	....	....	....	20.48	17.97	9.00	7.82	7.48	8.84	3.28	7.15
Fort Hancock, N. J	429	659.67	372.96	9.32	6.99	....	....	9.32	6.99	23.00	20.80	9.43	8.72	8.40	12.73	3.44	9.23

Posts having the highest admission and noneffective rates.

		Ratios per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
	Mean strength.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each soldier.	For each case.	For each case.
HIGHEST ADMISSION RATES FROM ALL CAUSES.																	
Fort Washington, Md	250	2,200.00	1,636.00	16.00	4.00	4.00	....	20.00	4.00	64.95	57.04	41.90	36.98	23.71	10.78	15.29	9.35
Fort Thomas, Ky	273	1,652.01	1,018.32	40.29	29.30	10.99	3.66	51.28	32.96	72.44	50.04	43.97	29.98	26.44	16.00	16.05	15.76
Fort Adams, R. I	431	1,621.81	1,020.88	9.28	6.96	2.32	....	11.60	6.96	45.01	33.87	28.29	22.37	16.43	10.13	10.33	10.12
Fort Logan, Colo	393	1,620.87	1,111.96	68.70	50.89	5.09	2.54	73.79	53.43	55.14	49.47	33.43	29.08	20.13	12.42	12.20	10.97
Fort Ethan Allen, Vt	694	1,576.37	819.88	15.85	14.41	1.44	....	17.29	14.41	44.74	20.82	18.29	7.94	16.33	10.36	6.68	8.14
HIGHEST ADMISSION RATES, EXCLUDING INJURIES, ETC.																	
Fort Washington, Md	250	2,200.00	1,636.00	16.00	4.00	4.00	....	20.00	4.00	64.95	57.04	41.90	36.98	23.71	10.78	15.29	9.35
Fort Logan, Colo	393	1,620.87	1,111.96	68.70	50.89	5.09	2.54	73.79	53.43	55.14	49.47	33.43	29.08	20.13	12.42	12.20	10.97
Fort Adams, R. I	431	1,621.81	1,020.88	9.28	6.96	2.32	....	11.60	6.96	45.01	33.87	28.29	22.37	16.43	10.13	10.33	10.12
Fort Thomas, Ky	273	1,652.01	1,018.32	40.29	29.30	10.99	3.66	51.28	32.96	72.44	50.04	43.97	29.98	26.44	16.00	16.05	15.76
Fort Baker, Cal	247	1,510.12	1,012.15	16.19	12.15	4.05	....	20.24	12.15	42.43	37.41	23.07	21.73	15.49	10.25	8.42	8.32
HIGHEST NONEFFECTIVE RATES FROM ALL CAUSES.																	
Fort Oglethorpe, Ga	548	1,472.63	804.74	45.62	21.90	12.77	7.30	58.39	29.20	77.43	62.05	42.83	34.83	28.26	19.19	15.63	19.42
Fort Thomas, Ky	273	1,652.01	1,018.32	40.29	29.30	10.99	3.66	51.28	32.96	72.44	50.04	43.97	29.98	26.44	16.00	16.05	15.76
Fort Washington, Md	250	2,200.00	1,636.00	16.00	4.00	4.00	....	20.00	4.00	64.95	57.04	41.90	36.98	23.71	10.78	15.29	9.35
Fort Snelling, Minn	751	1,214.38	701.73	29.29	17.31	3.99	1.33	33.28	18.64	64.42	59.41	31.25	28.68	23.51	19.36	11.41	16.26
Vancouver Barracks, Wash	621	1,217.39	700.48	43.48	38.65	14.49	9.66	57.97	48.31	60.14	55.84	34.83	33.34	21.95	18.03	12.71	18.15
HIGHEST NONEFFECTIVE RATES, EXCLUDING INJURIES, ETC.																	
Fort Thomas, Ky	273	1,652.01	1,018.32	40.29	29.30	10.99	3.66	51.28	32.96	72.44	50.04	43.97	29.98	26.44	16.00	16.05	15.76
Fort Oglethorpe, Ga	548	1,472.63	804.74	45.62	21.90	12.77	7.30	58.39	29.20	77.43	62.05	42.83	34.83	28.26	19.19	15.63	19.42
Fort Washington, Md	250	2,200.00	1,636.00	16.00	4.00	4.00	....	20.00	4.00	64.95	57.04	41.90	36.98	23.71	10.78	15.29	9.35
Vancouver Barracks, Wash	621	1,217.39	700.48	43.48	38.65	14.49	9.66	57.97	48.31	60.14	55.84	34.83	33.34	21.95	18.03	12.71	18.15
Fort Logan, Colo	393	1,620.87	1,111.96	68.70	50.89	5.09	2.54	73.79	53.43	55.14	49.47	33.43	29.08	20.13	12.42	12.20	10.97

In admissions from all causes and in admissions from all causes excluding injuries, venereal diseases, and alcoholism, Fort Des Moines had the lowest rates. From the point of low noneffectiveness Fort Meade stood first. The highest admission rate was recorded at Fort Washington, while troops stationed at Fort Oglethorpe furnished the highest noneffective rate. Excluding injuries, venereal diseases, and alcoholism the Fort Thomas command reported the highest noneffective ratio.

INFLUENCE OF AGE AND LENGTH OF SERVICE.

The following tables show the effect of age and length of service upon rates for disease:

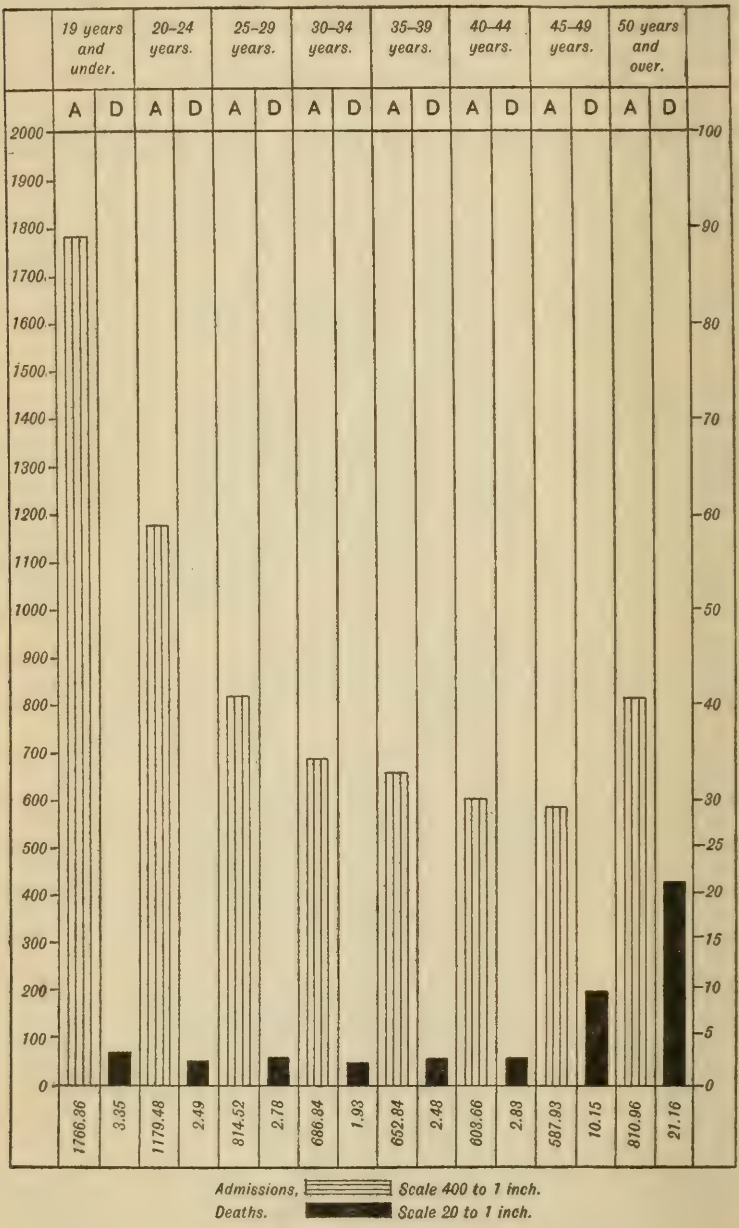
Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	8,252	11,828	678	21	447.40	1,433.33	78.75	2.44	54.22
1 to 2 years	7,959	7,286	181	18	328.77	915.44	21.84	2.17	41.31
2 to 3 years	7,290	6,650	87	22	254.90	912.21	11.45	2.90	34.97
3 to 4 years	2,340	1,625	66	3	84.35	694.44	27.05	1.23	36.05
4 to 5 years	3,005	2,223	47	6	101.94	739.77	15.02	1.92	33.92
5 to 10 years	7,860	6,344	149	24	273.68	807.11	18.34	2.95	38.82
10 years and over	3,915	2,390	43	26	110.31	610.47	10.62	6.42	28.18
Total	40,621	38,346	1,251	120	1,601.36	943.99	29.62	2.84	39.40

Age.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under	856	1,512	61	3	52.34	1,766.36	68.16	3.35	61.14
20 to 24 years	16,570	19,544	649	43	748.00	1,179.48	37.57	2.49	45.14
25 to 29 years	12,492	10,175	318	36	453.99	814.52	24.52	2.78	36.34
30 to 34 years	5,486	3,768	132	11	182.29	686.84	23.19	1.93	33.23
35 to 39 years	2,725	1,779	55	7	89.96	652.84	19.46	2.48	33.01
40 to 44 years	1,365	824	23	4	41.43	603.66	16.25	2.83	30.35
45 to 49 years	762	448	7	8	19.57	587.93	8.88	10.15	25.69
50 years and over	365	296	6	8	13.76	810.96	15.87	21.16	37.70
Total	40,621	38,346	1,251	120	1,601.36	943.99	29.62	2.84	39.40

The admission rate was highest for soldiers 19 years old and under and fell rapidly up to the age of 49, after which there was a slight rise; the discharge for disability and noneffective rates had the same characteristics; the death rate was lowest at the age of 30 to 34 years, after which there was a considerable rise; the highest death rate in soldiers under 45 years of age occurred in those of 19 years and under.

From the point of view of length of service all the rates were highest in the first year except the death rate, which was highest in the third year. The lowest discharge rate was recorded for soldiers in

Chart showing by ages the relative admission and death rates for disease per thousand of mean strength in the United States proper.



their third year of service; the lowest death rate in those in their fourth year, while the lowest noneffective rate was reported for soldiers who had 10 years' service and over.

INFLUENCE OF SEASON.

The following table shows the movement of sick, by months:

Month.	Mean strength.	Ratios per 1,000 of mean strength.								Prevailing diseases (exclusive of venereal diseases, etc.).
		All causes.					Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.		Deaths.[a]	Noneffective.		Admissions.	Deaths.	Noneffective.	
		Total.	Hospital.		Total.	Hospital.				
Jan	43,642	106.73	77.04	0.35	49.10	40.30	64.36	0.15	27.50	Tonsillitis, 372; acute bronchitis, 247; muscular rheumatism, 145; mumps, 130; influenza, 121.
Feb	43,025	90.37	65.12	.38	51.41	42.74	54.15	.20	29.36	Tonsillitis, 306; acute bronchitis, 170; influenza and mumps, 140 each.
Mar	42,683	101.82	73.35	.53	49.53	41.22	65.06	.35	29.77	Tonsillitis, 356; acute bronchitis, 263; mumps, 176; malaria, 168; muscular rheumatism, 141; influenza, 138.
Apr	41,201	104.39	76.62	.58	48.14	40.08	63.42	.30	28.70	Tonsillitis, 261; malaria, 172; mumps, 168; acute bronchitis, 146.
May	41,725	98.74	69.33	.32	45.92	38.14	59.87	.16	27.31	Malaria, 194; tonsillitis, 162; acute bronchitis, 161; diarrhea, 156; muscular rheumatism, 129.
June	42,070	90.14	64.73	.41	43.41	35.96	53.10	.21	25.91	Diarrhea, 203; malaria, 197; tonsillitis,120; furuncles, 105.
July	40,705	91.91	63.04	.54	42.65	35.42	55.15	.24	25.31	Diarrhea, 386; malaria, 217; dyspepsia, 120; furuncles, 113.
Aug	41,088	118.72	57.10	.63	46.18	36.78	83.09	.28	29.10	Diarrhea, 1,185; malaria, 299; furuncles, 138; dyspepsia, 137; muscular rheumatism, 117.
Sept	40,128	96.89	51.31	.42	45.94	36.98	61.48	.25	27.97	Diarrhea, 400; malaria, 306; dyspepsia, 110; furuncles, 101.
Oct	36,873	91.12	62.78	.44	46.25	39.28	52.88	.21	26.98	Malaria, 185; acute bronchitis, 144; diarrhea, 128; tonsillitis, 107; furuncles, 101.
Nov	36,996	89.01	63.30	.34	48.01	40.87	48.52	.18	26.18	Tonsillitis, 171; acute bronchitis, 139; muscular rheumatism, 104.
Dec	37,318	98.21	68.97	.31	47.96	40.09	56.19	.21	25.64	Tonsillitis, 275; acute bronchitis, 190; influenza, 126.
Total	40,621	1,179.93	794.42	5.28	46.92	38.87	719.55	2.75	27.44	Diarrhea, 2,993; acute bronchitis, 1,821; tonsillitis, 2,380; muscular rheumatism, 1,316; malaria, 2,042; furuncles 1,129, and dyspepsia, 1,081.

[a] Ratios for deaths based on mean strength, "present and absent," total 42,239.

The highest admission and death rates were recorded in August; the highest noneffective rate in February; the lowest admission and noneffective rates in November and July, respectively, and the lowest death rate in December.

INFLUENCE OF RACE.

As usual, all rates for colored troops, except the death rate, were considerably lower than those for white soldiers. The admission, discharge for disability, death, and noneffective rates for colored troops from all causes were 884.32, 16.22, 10.68, and 37.35, respectively, compared with 1,199.16, 33.32, 4.94, and 47.55, the corresponding figures for white troops.

All the rates for colored troops, except the noneffective figure, were much lower than those for the previous year.

For disease only the admission, discharge, and constant noneffective rates were better for colored than for white soldiers, but the death rate of the former class was nearly two and a half times as great as for the latter. The death rate among the colored troops was greater than among the white in nearly all classes of diseases, especially so in the diseases of the respiratory, digestive, and circulatory systems. The rate for tuberculosis was more than four times as great, and for pneumonia more than tenfold. It is noticeable that while there were 22 deaths from drowning among the white troops, there was none among the colored.

The relative prevalence of certain special diseases among white and colored troops, with the admission rates per 1,000 for each, are shown in the following table:

Special diseases.	White.	Colored.
Venereal diseases	159.47	150.34
Tonsillitis	60.23	33.45
Bronchitis, acute and chronic	49.71	22.17
Diarrhea, including enteritis	75.56	44.74
Malaria	52.20	20.56
Influenza	23.02	21.77
Muscular rheumatism and myalgia	31.93	39.50
Hemorrhoids	7.89	16.53
Rheumatism, subacute and chronic	7.05	9.67
Measles	6.74	.40
Dysentery	6.14	3.22
Tuberculosis	4.96	9.27
Typhoid fever	6.00	.40
Pneumonia	2.20	4.43
Frostbite and freezing	.71	4.43
Smallpox	.16	2.42

The relative importance of certain special diseases as causes of death, with the death rates per 1,000 for each race, was as follows:

Special diseases.	White.	Colored.
Tuberculosis	0.65	2.77
Pneumonia	.15	1.58
Typhoid fever	.30	....
Alcoholism	.03	....
Venereal diseases	.05	.40
Bronchitis, acute and chronic	.03	....
Malaria	.03	....
Influenza	.03	....

DISCHARGES FOR DISABILITY.

Of the 1,364 men discharged for disability in the United States, over 64 per cent were for disabilities not incurred in line of duty, and of these, 51 per cent were contracted before enlistment. The principal causes of discharge, with the number for each cause, were: Tuberculosis 149, venereal diseases 165, defective vision 141, defective hearing 90, and organic disease of the heart 71. The following table shows in detail the causes of discharge among soldiers in the United States proper:

Discharges for disability, year 1906, American troops serving in the United States continental (excluding Alaska).

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES.							
General diseases	395	31.57	188	59	148	6	47
Venereal diseases	165	13.18	3	31	131	1	29
Syphilis (primary, 1; secondary, 100; tertiary 17)	118	9.43	1	22	95	....	20
Gonorrhea (gonorrheal rheumatism, 24; chronic gonorrhea, 7; gonorrheal ophthalmia, 4; gonorrheal stricture, 4; gonorrheal epididymitis, 2; gonorrheal conjunctivitis, 1; other results of gonorrhea, 3)	45	3.59	2	9	34	1	9
Chancroids	2	.16	....	....	2	....	....
Tuberculosis (of the lungs, 143; of other organs, 6)	149	11.91	131	18	....	5	14
Chronic articular rheumatism	26	2.07	22	4	....	....	1
Dysentery (amebic, 19; catarrhal, 1)	20	1.59	20	....	....	....	....
Chronic alcoholism	13	1.03	....	1	12	....	....
Drug habit (all opium)	8	.63	....	3	5	....	3
Diabetes	5	.40	5	....	....	....	....
Malarial cachexia	2	.16	....	2	....	....	....
Leukemia	2	.16	2	....	....	....	....
Cancer	1	.08	1	....	....	....	....
Tumor	1	.08	1	....	....	....	....
Exophthalmic goiter	1	.08	1	....	....	....	....
Anemia	1	.08	1	....	....	....	....
Marie's ataxia	1	.08	1	....	....	....	....
Diseases of the organs of special sense	231	18.46	49	181	1	3	133
Diseases of the middle and internal ear (perforation of tympanum, 2; otitis media, 64; deafness, 24)	90	7.19	22	68	....	2	48
Errors of refraction	74	5.91	5	69	....	....	50
Chronic conjunctivitis	27	2.15	2	25	....	....	25
Diseases of the globe (congenital defect of iris, 1; retinitis, 7; keratitis, 5)	13	1.03	8	4	1	....	1
Other diseases of the eye (asthenopia, 2; defective vision, 3; atrophy optic nerve, 2; optic neuritis, 1; pterygium, 1; and light blindness, 1)	10	.79	4	6	....	....	4
Trachoma	8	.63	2	6	....	....	4
Diseases of choroid	4	.32	3	1	....	1	1
Cataract	4	.32	3	1	....	....	....
Amblyopia	1	.08	....	1	....	....	....
Diseases of the digestive system	143	11.43	47	95	1	4	76
Diseases of the teeth, gums, and alveoli	59	4.71	....	58	1	....	47
Hernia (inguinal, 51; ventral, 5)	56	4.47	22	34	....	3	27
Diseases of the intestines (enteritis, 4; sprue, 3; prolapse of rectum, 2; chronic diarrhea, 1; fistula in ano, 1; incontinence of feces, 1)	12	.95	12	....	....	1	....
Diseases of the stomach (gastric ulcer, 1; gastritis, 5)	6	.48	6	....	....	....	....

Discharges for disability, year 1906, American troops serving in the United States continental (excluding Alaska)—Continued.

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Diseases of the digestive system—Cont'd.							
Diseases of the liver (abscess, 1; cholecystitis, 1; relaxed condition of suspensory ligament of liver and mesentery, 1; cirrhosis, 2)	5	0.40	3	2			1
Appendicitis	4	.32	4				
Chronic tonsillitis, post-nasal adenoids, and chronic tubo-tympanitis	1	.08		1			1
Diseases of the nervous system	137	10.95	53	73	11	3	29
Insanity	53	4.23	26	22	5	2	8
Epilepsy	41	3.27	4	36	1		15
Other diseases of the nervous system (masturbation, 2; somnambulism, 2; hysteria, 1; caisson disease, 1; neurosis, 1; sexual perversion, 1; convulsions, 1; instability of the nervous system, 1)	10	.79	1	6	3		5
Neurasthenia	7	.56	4	3			
Other diseases of the spinal cord (myelitis, 3; multiple sclerosis, 1; muscular atrophy, 1; complete anesthesia of leg and thigh, 1)	6	.48	6				
Paralysis without specified cause	4	.32	3	1			
Melancholia	4	.32	1	2	1		1
Chorea	3	.24	1	2			
Neuritis	3	.24	3				
Meningitis	2	.16		1	1		
Neuralgia	2	.16	2			1	
Locomotor ataxia	1	.08	1				
Cerebral embolism	1	.08	1				
Diseases of the circulatory system	108	8.63	27	79	2	2	60
Organic disease of the heart	71	5.67	20	51		1	42
Functional disease of heart	20	1.59	2	16	2	1	8
Varicose veins	5	.40	2	3			2
Hemorrhoids	4	.32		4			4
Varicocele	3	.24		3			2
Phlebitis	2	.16	2				
Angina pectoris	1	.08		1			1
Aneurism of arch of aorta	1	.08	1				
Arterio-sclerosis	1	.08		1			1
Congenital malformation and arrested development	94	7.51		94			50
Diseases of the organs of locomotion	47	3.75	28	18	1		5
Diseases of the joints (bunions, 6; synovitis, 5; flat feet, 5; arthritis, 3; ankylosis, 2; splay feet, 1; chronic stiffness of joint, 1)	23	1.83	14	8	1		1
Diseases of the bones (caries and necrosis, 3; exostosis, 3; periostitis, 3; curvature of spine, 2; osteoma, 1)	12	.95	5	7			3
Myalgia and muscular rheumatism	8	.63	7	1			
Diseases of tendons and muscles	4	.32	2	2			1
Diseases of the genito-urinary system	37	2.95	14	23		1	12
Bright's disease	15	1.19	9	6		1	6
Diseases of the bladder (chronic cystitis, 2; enuresis, 11)	13	1.03	2	11			3
Diseases of the testicles (orchitis, 2; retraction, 1; undescended, 1; cystic degeneration, 1; painful testicle following operation, 1)	6	.48	3	3			1
Diseases of urethra (stricture, 2; hypospadias, 1)	3	.24		3			2
Diseases of the respiratory system	38	3.03	10	28		2	21
Diseases of the lungs (chronic bronchitis, 8; asthma, 5; emphysema, 2; pleurisy, 1; pneumonia, 1; areas of consolidation, 1)	18	1.43	9	9		2	6
Chronic nasal catarrh	17	1.35	1	16			12
Other diseases of nasal fossæ	3	.24		3			3

Discharges for disability, year 1906, American troops serving in the United States continental (excluding Alaska)—Continued.

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharged for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES—continued.							
Diseases of the skin (chronic ulcers, 4; hyperhidrosis, 2; chronic eczema, 2; dermatitis, 2; gangrene, 1; corns, 1)	12	0.95	4	8			5
Ill-defined diseases (debility following operation and disease, 6; general unfitness, 1)	7	.56	3	4			
Old age and results	2	.16	2				
Total	1.251	100.00	425	662	164	21	438
INJURIES.							
Secondary result of injuries	38	33.62	1	36	1		18
Fractures	32	28.31	25		7	2	
Gunshot wounds	15	13.27	13		2	1	
Incised wounds	5	4.42	4		1		
Sprains	4	3.54	4				
Lacerated wounds	4	3.54	2		2		1
Crushing	4	3.54	2		2	1	
Dislocations	3	2.65	2		1	1	
Punctured wounds	3	2.65	2		1		
Muscular strains	2	1.77	2				
Contusions	2	1.77	2			1	
Burns	1	.88	1				
Total	113	100.00	60	36	17	6	19
Grand total	1,364	100.00	485	698	181	27	457
Diseases	1,251	91.71	425	662	164	21	438
Injuries	113	8.28	60	36	17	6	19

CAMPS OF INSTRUCTION.

The health of the commands in these camps was generally excellent, although typhoid fever made its appearance in all of them. A considerable number of cases occurred at the camps at Fort Benjamin Harrison, Chickamauga Park, and American Lake. In no case did the disease assume anything like epidemic proportions. Most of the cases were contracted on the march to camp or brought from the home stations of the troops, while in those instances in which infection was contracted when in camp it is believed that the source of infection was outside the camp proper.

The sanitary condition of the camps was generally very good indeed, probably better than in any previous maneuvers. With one or two exceptions where the water supply was considered absolutely pure, all drinking water used in the camps was sterilized. On the march to and from camp the sterilization of water was not so carefully attended to: neglect in this respect was probably responsible for many of the cases of typhoid fever. It is believed that this source of infection might be avoided by providing means for the sterilization and transportation of drinking water on the march, and therefore recommendation has been made that water carts, together with sterilizing apparatus, be regularly supplied to troops for use on the march.

Various methods of disposing of excreta were given a trial to ascertain which was the best. As a result of these trials it was recommended that the McCall incinerator be adopted as the standard appliance for the disposal of excreta in camps.

The disposal of kitchen wastes and garbage offered another problem, the solution of which was not satisfactorily settled, but it was recommended that portable camp crematories be furnished for this purpose. Certain it is that organic wastes of any sort should not be deposited in pits in the ground or left on the surface anywhere within the camp area.

The shower baths, which were generally erected in all the camps by the quartermaster's department, proved their great value and should form a part of the regular equipment of all future camps. While these provided for the cleanliness of the person of the soldier, the washing of the soldiers' underclothing was not satisfactorily worked out. In some of the camps portable laundry machines were provided and are said to have given good results. Further experiments should be made along this line.

With a view to protection from flies, which are known to carry typhoid fever, many of the camp surgeons recommended that kitchen and mess tents should be provided with fly-proof screens. It is believed that such protection is a necessary sanitary measure.

As has always been the case in previous maneuvers, the personnel of the medical department was entirely inadequate in numbers to properly carry out maneuver problems in the field work of the medical department. By removing all available medical officers from posts in the maneuver districts and replacing them with contract surgeons, and reducing the hospital corps personnel of the same posts to the lowest number compatible with efficiency, it was possible to provide for the camps a number of medical officers not more than sufficient to care for the sick and the sanitation of the camps of instruction.

Sanitary squads, a new feature in sanitary work, were tried for the first time in these camps. These squads were composed of noncommissioned officers and men of the hospital corps and of civilians hired by the quartermaster's department and turned over to the medical department for its use. The function of these squads was, with the approval of the commanding officer, and under the direction of the surgeon, to carry out the sanitary measures recommended by medical officers, such as the sterilization of water, the disposal of excreta, the care of the sinks, measures for the destruction of mosquitoes and flies, and the many other details of camp sanitation. The sanitary squad was a complete success, and recommendation will be made looking to a permanent organization of this character.

SANITATION.

Barracks and quarters in general have been reported in good condition; overcrowding of guardhouses and barracks has been recorded at a few posts.

The adoption of an isolation pavilion separate from the main hospital marks a decided advance in hospital construction during the year. This pavilion provides accommodation for the separate isolation of several different sorts of contagious disease and is complete in itself except that cooking is done in the main hospital. Each pavilion is provided with a steam-disinfecting plant and with diet kitchens and bathrooms. The first of these new isolation buildings was erected at Fort Myer during the year, and thus far has proved entirely satisfactory.

Drainage and sewage disposal in posts remains about the same as last year. Some of the biological sewage purification plants have been enlarged to meet the wants of increased garrisons, and an additional one has been erected at Fort Benjamin Harrison.

The McCall incinerator has been adopted as the preferred type to gradually replace the Reed trough system for the disposal of excreta in the field in permanent and semipermanent camps. About 75 of these incinerators have been issued and very favorable reports have been received as to their operation.

Investigation is now being made to secure a satisfactory garbage destructor for field use.

Water supply at posts, as a rule, is of sufficient quantity and of good quality. Efforts have been continued to secure a satisfactory means of purification of water in the field, but so far without entire success. A new type of field filter, invented by Capt. C. R. Darnall of the medical department, has been given a trial by a board of officers with sufficiently satisfactory results to justify the purchase of several of these filters for further trial in the field under service conditions.

To meet the needs of moving commands for a ready supply of drinking water beyond that carried in canteens, it was recommended that a suitable water cart be adopted, and the quartermaster's department is now engaged in the construction of such a cart.

A large wheeled water sterilizer of German pattern has been given a trial with troops in Cuba, and while the results, so far as obtaining a sterile water, have been satisfactory, the design of the apparatus is faulty, which will probably prevent its adoption.

There have been few complaints of the clothing furnished enlisted men, though a number of medical officers have reported the cotton khaki garments as being generally ill fitting and not permanent in color.

The provision in the last army appropriation bill for the establishment of steam laundries at posts is a great advance from a sanitary point of view over the old method of allowing the soldier to have his laundry done wherever he wished. It is hoped that the new plan will be a decided assistance, not only in preventing the introduction of contagious diseases into posts but also in maintaining the personal cleanliness of the soldier.

A portable sterilizer for field use in the disinfection by steam of the clothing and effects of soldiers suffering from infectious diseases has been added to the supply table and is expected to prove a very valuable adjunct in the suppression of outbreaks of contagious disease in the field.

The necessary steps to obtain conditions at all posts which will be satisfactory from a sanitary point of view are being taken, and while all defects can not be corrected immediately, recommendations tending to improve the sanitation of military stations and their environments usually receive the favorable consideration of the proper authorities, and the measures recommended are executed as soon as the funds, labor, material, etc., become available.

A general idea of the sanitary conditions of the different posts in each military department may be gained from the following data taken from the sanitary reports and the annual reports of chief surgeons of departments:

DEPARTMENT OF THE EAST.

Fort Andrews, Mass.—A crematory is needed at this post, as garbage and other wastes thrown into the sea are washed back upon the shore.

Fort Du Pont, Del.—On account of the flat grounds and lack of slope in mains the same unsatisfactory conditions exist in regard to drainage and sewerage at this post as previously reported.

Fort Hamilton, N. Y.—Buildings are for the most part old and unsuitable for their purposes. A request for an ice plant was disapproved. The quality of the ice obtainable is inferior.

Fort Hancock, N. J.—The water supply is unsatisfactory; work on deep wells is progressing. The crematory needs remodeling and the filling in of the swamps should be completed as soon as practicable. The vacant shacks on the reservation formerly occupied by married soldiers should be torn down.

Fort Howard, Md.—The swamp portion of this reservation should be filled in or drained. The marshes have been full and overflowing most of the year as a result of excessive rainfall.

Fort Jay, N. Y.—Barracks at this post are very old and unsatisfactory. A new hospital is very much needed, but must wait completion of extension of area of Governors Island. The hospital building is a dilapidated frame structure and is not worth repair.

Fort McKinley, Me.—The water supply is insufficient in dry weather.

Fort Mott, N. J.—A crematory and means of distributing the distilled water are needed at this post. The swamps on the reservation should be filled in and drained.

Fort Myer, Va.—Owing to defective surface drainage of reservation and surrounding country, which prevents the destruction of their breeding places, mosquitoes are very numerous.

Fort Niagara, N. Y.—The water supply, taken from the Niagara River, is sterilized before use. Efforts to secure a safe supply have so far been unsuccessful.

Fort Ontario, N. Y.—The quarters occupied by the noncommissioned officers and their families are improperly and poorly heated. Small hot-water heating plants should be installed in these buildings.

Plattsburg Barracks, N. Y.—Certain frame buildings occupied by civilians are reported as insanitary. The presence of the Delaware and Hudson Railroad is considered a nuisance on account of the proximity of trains, etc. It also occupies the most desirable building site. The general sanitary condition is unsatisfactory. Some of the barracks are overcrowded and poorly ventilated. Plumbing throughout the post is obsolete and needs thorough overhauling. Electricity should be substituted for the present means of lighting the post.

Fort Schuyler, N. Y.—The casemate barracks are damp, poorly lighted and ventilated, and unfit for use as quarters.

Fort Strong, Mass.—The method of the disposal of garbage employed at this station is unsatisfactory.

Fort Wadsworth, N. Y.—The casemate barracks are leaky, poorly ventilated, poorly lighted, and generally insanitary, owing to structural defects, and cause a large number of admissions to sick report for respiratory diseases.

Fort Warren, Mass.—The insanitary moat on this reservation is still only partially filled.

Washington Barracks, D. C.—The old buildings on the grounds of the War College are insanitary. They should be removed and proper drainage secured for the sites which they occupy.

Fort Washington, Md.—All tall grass, weeds, and underbrush on the reservation should be cut down, so as to remove the many natural harboring places for mosquitoes, and to expose the earth to the sun's rays, so that it may be thoroughly dried on sunny days.

Fort Williams, Me.—The guardhouse is unsatisfactory, in that it lacks lavatory accessories. The dwellings used as quarters for married enlisted men are old and their sanitary condition poor.

DEPARTMENT OF TEXAS.

Fort Bliss, Tex.—The sanitary condition of the post is excellent, the buildings modern, and the water supply good.

Fort Clark, Tex.—The quarters are old, obsolete, and really unfit for occupancy. The water supply is piped from a fresh flowing spring on the reservation. The drinking water is distilled at the ice plant. Excreta is removed by the trough and odorless excavator system.

Jefferson Barracks, Mo.—The sanitary conditions at this post are good, except the water-closets in the hospital, which are primitive and need constant repair. The hospital is inadequate and unsuited to the needs of the garrison. Appropriation has been made for a new hospital.

Fort Logan H. Roots, Ark.—The sanitary condition of the post may be regarded as good. The buildings are new and modern and the water supply satisfactory.

Fort McIntosh, Tex.—The public buildings at this post are in a good state of repair, and the general sanitary condition of the reservation is satisfactory.

Fort Reno, Okla.—The water used for drinking is hauled from a distance of 4 miles. The water supply in general is piped from wells in the Canadian River bottom, but is hard and scarcely fit for drinking purposes. The buildings are old, but in fairly good repair.

Fort Sam Houston, Tex.—The sanitary condition of this post is excellent. The buildings are new and modern, and the water supply and methods of disposal of excreta and wastes are satisfactory.

Fort Sill, Okla.—The buildings upon this reservation are old; the roofs of the barracks and some of the quarters are leaky. The guardhouse is inadequate and insanitary. The surrounding country is conducive to the propagation of mosquitoes, and as the quarters and barracks were poorly screened malarial diseases were prevalent during the year. Recommendation for the installation of 18-mesh wire screens at this post was not carried out.

DEPARTMENT OF THE LAKES.

Fort Sheridan, Ill.—The guardhouse at this post is deficient in laundry facilities for the prisoners. Plumbing in the older buildings is defective, fixtures are old, soiled, and stained, and the floors of some lavatories are broken, permitting the entrance of waste and filth, and subsequent decomposition. A septic tank should be installed to prevent pollution of the lake water, which is the source of supply of several communities in the vicinity.

Fort Wayne, Mich.—Two new barracks and four sets of officers' quarters have been completed and occupied at this post during the year, all being of modern construction and equipment. The present hospital is too small for the garrison. Several additional rooms are necessary.

Fort Thomas, Ky.—The sanitary condition of this post is good. The new plumbing authorized for officers' quarters and barracks of the enlisted men is being installed in a rapid and satisfactory manner. Water used for drinking purposes is boiled.

DEPARTMENT OF CALIFORNIA.

Alcatraz Island, Cal.—The sanitary condition of barracks is considered good since the overcrowding has been relieved by the completion of a new set. The military prison is reported very much overcrowded.

Benicia Barracks, Cal.—Public buildings are old and were considerably damaged by the recent earthquake. The grounds and roads are in poor condition.

Presidio of San Francisco, Cal.—The buildings at this post were more or less seriously damaged by the recent earthquake.

Depot of recruits and casuals.—Buildings are clean and well policed, but overcrowded, especially in recruit barracks. The trough latrine system in use is far from satisfactory. The troughs are old and corroded and impossible to clean. Additional barracks should be provided and modern sanitary plumbing installed at this post.

DEPARTMENT OF DAKOTA.

Fort Assinniboine, Mont.—There has been no important change in the sanitary condition at this post during the year. The water supply is uncertain in quantity, fluctuating directly with the character of the weather and season, the supply being seepage from the adjacent Beaver Creek. Its quality is poor, at times even dangerous. Whenever the water supply becomes deficient disposal of sewage becomes a serious problem.

Fort William Henry Harrison, Mont.—The sanitary conditions are good. The water supply is inadequate, but of excellent quality. Work upon an addition to the hospital is in progress.

Fort Keogh, Mont.—Barracks and quarters are old and in fair condition. Water supply is of inferior quality; some method of filtration should be installed if the post is to remain garrisoned.

Fort Lincoln, N. Dak.—There was no change in the sanitary condition during the year.

Fort Missoula, Mont.—The sanitary condition is satisfactory, no important change having been made during the year.

Fort Snelling, Minn.—Several improvements and additions were made to the hospital at this post during the year. The sanitary condition appears to be satisfactory.

Fort Yellowstone, Wyo.—No important change in the sanitary condition has been made during the year.

DEPARTMENT OF THE COLORADO.

The sanitary conditions of posts in this department were satisfactory throughout the year.

DEPARTMENT OF THE MISSOURI.

Fort Des Moines, Iowa.—The sewage-disposal plant which was reported out of order several times during the year is now working satisfactorily. The buildings and grounds are in an excellent sanitary condition.

Fort Leavenworth, Kans.—The quality of the water supply at this post is not altogether satisfactory. All water used for drinking purposes is boiled and clarified before use.

Fort Meade, S. Dak.—When the new quarters, now being erected to replace the old buildings, are completed the sanitary condition of the post will be satisfactory.

Fort Omaha, Nebr.—A large filter has been requested for this post as the water is of poor quality; the supply is ample.

Fort Riley, Kans.—Aside from a few minor defects the buildings are in a satisfactory sanitary condition.

DEPARTMENT OF THE GULF.

Fort McPherson, Ga.—The sanitary condition of the post is good. The new pumping machinery and reservoir for water with accompanying piping were completed during the year. The water supply is now ample and of excellent quality. A new and modern hospital is urgently needed for this post, which now has quarters and accommodations for a full regiment of infantry.

Fort Morgan, Ala.—The sanitary condition of this post up to the time of the severe storm in September was good; since that time the conditions have been unsatisfactory. The sewer and water systems have been partially and temporarily repaired. The buildings are in a damaged condition. Rain water is used for drinking purposes.

Fort Oglethorpe, Ga.—The sanitary conditions are considered good. The most important improvement during the year was the enlargement of the septic tank, increasing its capacity 50 per cent.

Jackson Barracks, La.—The following sanitary improvements were made during the year: Completion of screening of buildings at the post, completion of an isolation ward for yellow fever patients, screening of cisterns and building of 20 new cisterns and a new sewer. The following defects have not yet been remedied: Building of pumping station to pump sewage of the post into the river; connecting lavatory, bath, and kitchen sinks with sewer, and providing new building for one company and new quarters for commissioned officers.

Fort St. Philip, La.—The sanitary condition has been satisfactory. Most of the damage to the buildings by the severe storm of September 27 has been repaired.

Fort Barrancas, Fla.—The sanitary condition of this post is considered good. The buildings are in fairly good repair. Natural drainage of the post proper is good; low lands adjacent are drained by open ditches.

Fort Dade, Fla.—The sanitary conditions are excellent. The clearing away of a palmetto jungle from a greater portion of the reservation was a great improvement.

Key West Barracks, Fla.—The sanitary condition is not considered entirely satisfactory. The present guardhouse is very old, small, and insanitary. The sleeping quarters for the hospital corps detachment are inadequate.

Fort Screven, Ga.—Conditions have been much improved during the year by grading and filling in the low places, the level being raised about 18 inches in rear of barracks and officers' quarters.

Fort Fremont, S. C.—The sanitary condition is good.

Fort Moultrie, S. C.—While the sanitary condition is considered good, the drainage is poor, owing to the slight difference between the ground and sea level. The heating of the barracks by hot air has not been satisfactory.

Fort Caswell, N. C.—No sanitary defect of importance has been reported.

DEPARTMENT OF THE COLUMBIA.

Fort Casey, Wash.—Sanitary conditions were satisfactory during the year.

Fort Flagler, Wash.—The sanitary condition was improved during the year by the removal of the dense underbrush on the reservation and the construction of surface drains.

Fort Lawton, Wash.—Steps have been taken to increase the water supply, which has not been sufficient during the year. Owing to the presence of a salt-water marsh upon the reservation, mosquitoes are a pest during the summer months. Recommendation was made that the marsh be filled in and that the woodland between the post and Puget Sound be cleared of underbrush and many of the trees.

Fort Stevens, Oreg.—The pools of stagnant water surrounding the buildings should be filled in or graded so as to promote drainage.

Vancouver Barracks, Wash.—The floors of the old barracks are badly worn and remain damp after they have been mopped. The metal troughs in the water-closets are insanitary.

Fort Walla Walla, Wash.—Since the new sets of brick barracks have been completed and occupied the sanitary condition of this post has improved. The old buildings, with a few exceptions, are in poor condition.

Fort Ward, Wash.—No sanitary defect of importance has been reported during the year.

Fort Wright, Wash.—The pits of the quarters occupied by the civilian employees have been replaced by water-closets during the year.

ALASKA.

The average mean enlisted strength of the troops serving in Alaska during the year was 805, composed of infantry, signal corps, and hospital corps, all white.

The following table shows the admission, death, and noneffective rates, total and by months, with the prevailing diseases for each month, while the second statement exhibits the total movement of sick by posts:

Effects of season.

Month.	Mean strength.	Ratios per 1,000 of mean strength.								Prevailing diseases (exclusive of venereal diseases, etc.).
		All causes.					Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.		Deaths.[a]	Noneffective.		Admissions.	Deaths.	Noneffective.	
		Total.	Hospital.		Total.	Hospital.				
Jan......	849	68.32	41.22	......	27.39	18.85	41.22	......	19.23	Muscular rheumatism, 6; tonsillitis, 3; acute bronchitis, 4; coryza, 3; scabies, 3.
Feb......	851	37.60	22.33	1.02	23.46	14.77	25.85	1.02	17.46	Muscular rheumatism, febricula, acute diarrhea, and acute bronchitis, 2 each.
Mar.	821	57.25	37.76	......	25.97	19.57	36.54	......	20.59	Muscular rheumatism, 8; acute bronchitis, coryza, tonsillitis, and dyspepsia, 3 each.
Apr......	784	54.85	40.82	1.08	28.10	23.21	33.16	......	20.45	Snow blindness, 4; dyspepsia, 3.
May......	894	61.52	38.03	......	30.85	23.09	35.79	......	20.93	Constipation, 5; muscular rheumatism, 4; hemorrhoids, 3.
June.....	897	61.32	30.10	1.10	34.41	20.29	43.48	1.10	24.12	Coryza, 7; dyspepsia, acute diarrhea, and muscular rheumatism, 3 each.
July.....	739	92.02	60.89	1.42	25.71	16.76	52.77	.71	15.67	Measles, 9; muscular rheumatism, 5; acute bronchitis, 4.
Aug.....	816	66.18	51.47	....	19.65	16.25	40.44	......	11.07	Acute bronchitis, 11; measles, 5.
Sept.....	794	62.97	39.04	1.14	16.62	11.25	41.56	......	7.93	Acute bronchitis, 7; tonsillitis, 5; coryza and constipation, 3 each.
Oct......	751	46.60	30.63	......	19.84	16.92	27.96	......	11.51	Diseases of the pharynx, enteritis, furuncle, and muscular rheumatism, 2 each.
Nov.....	732	45.08	31.42	......	16.39	13.57	30.05	......	8.61	Acute bronchitis and muscular rheumatism, 3 each.
Dec......	737	61.06	37.99	....	14.31	9.19	47.49	..	10.33	Tonsillitis, 5; acute bronchitis, 4; muscular rheumatism, 4.
Total..	805	714.29	459.63	6.46	23.87	17.16	455.90	3.23	15.92	Muscular rheumatism, 41; acute bronchitis, 38; tonsillitis, 24; dyspepsia, 18; articular rheumatism, 15.

[a] Ratios for deaths based on mean strength, "present and absent," total 929.

Influence of station.

	Mean strength.	Ratios per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Fort Davis	80	487.50	275.00	....	....	12.50	12.50	12.50	12.50	24.52	18.22	17.53	13.80	8.95	18.36	6.40	23.27
Fort Liscum	127	669.29	385.83	15.75	15.75	15.75	....	31.50	15.75	29.43	25.33	15.41	15.17	10.74	16.05	5.61	14.53
Fort St. Michael	109	587.16	394.50	....	....	9.17	....	9.17	....	13.50	9.07	8.50	6.59	4.93	8.39	3.10	7.86
Fort Wm. H. Seward	191	785.34	434.55	5.24	5.24	....	....	5.24	5.24	22.28	19.90	12.97	12.31	8.13	10.35	4.73	10.89
Fort Gibbon	184	679.35	505.43	....	....	10.87	10.87	10.87	10.87	25.21	17.99	19.65	15.17	9.20	13.54	7.17	14.19
Fort Egbert	114	982.46	675.44	....	....	....	....	....	....	27.66	9.16	21.41	6.10	10.10	10.28	7.82	11.57
Total	805	714.29	455.90	5.38	5.38	6.46	3.23	11.84	8.61	23.87	17.16	15.92	11.91	8.71	12.20	5.81	12.74

NOTE.—Two discharges reported in the total ratio were of cases invalided home to the United States.

It will be noted that the health of troops serving in Alaska was satisfactory; indeed, much better than for last year, when the Alaskan posts were reported as being remarkably healthy stations for troops. All the sick rates were considerably lower during the past year than in 1905, the admission, death, and noneffective rates being 714.29, 6.46, and 23.87, compared with 944.97, 9.37, and 30.80, respectively, the corresponding rates for the preceding year, and 1,179.93, 5.28, and 46.92, the rates for the United States proper.

The following statement shows the cause of mortality among troops in Alaska during the year:

Cause of death.	Number of deaths.	Ratio per 1,000 of— Mean strength.	Ratio per 1,000 of— Total deaths.
DISEASES.			
Typhoid fever	1	1.08	250.00
Leukemia	1	1.08	250.00
Alcoholism	1	1.08	250.00
Organic disease of the heart	1	1.08	250.00
Total	4	4.31	1,000.00
INJURIES.			
Gunshot wound of head (suicidal)	1	1.08	500.00
Drowning, accidental	1	1.08	500.00
Total	2	2.15	1,000.00
Total for disease and injury	6	6.46	1,000.00

There was 1 case of typhoid fever during the year at Fort Gibbon, resulting fatally. There was only 1 admission for malaria and 2 for fevers undetermined. The admission rates for tuberculosis and alcoholism, 4.97 and 27.33, respectively, were far better than for the previous year, and compare favorably with 5.22 and 32.27, the corresponding rates for the United States proper in 1906. The admission rate for venereal diseases was slightly increased, compared with the rate for the previous year; this class of diseases also caused the highest noneffective rate among the troops serving in Alaska.

Only 5 men were invalided home during the year, 1 of whom was returned to duty, 1 discharged for disability, 1 otherwise disposed of, and 2 were on sick report at the end of the year. No one disease was prominent as an invaliding factor.

Excluding injuries, venereal diseases, and alcoholism, the post having the highest admission and noneffective rates was Fort Egbert, which in 1905 had next to the highest rates. The post having the lowest admission rate was Fort Davis, while the lowest noneffective rate was recorded at Fort St. Michael. The highest admission and noneffective rates were noted in July and June, respectively, and the lowest in February and December.

The next table shows the admissions and deaths for certain special diseases.

Special diseases—Alaska, 1906.

Disease.	Admitted.	Number of men represented by the admissions.	Died.	Ratio per 1,000 of mean strength—	
				Admitted.	Died.
Typhoid fever	1	1	1	1.24	1.08
Malarial fever	1	1	....	1.24	....
Fever, undetermined	2	2	....	2.48	....
Tuberculosis	4	3	....	4.97	....
Venereal diseases	53	43	....	65.84	....
Alcoholism	22	19	1	27.33	1.08
Frostbite and freezing	10	10	....	12.42	....
Dysentery	3	3	....	3.73	....
Diarrhea (including enteritis)	19	16	....	23.60	....

SANITATION.

Fort Davis.—There is no sewerage system at the post; good surface drainage. Wastes are carted away and dumped on the beach 1 mile east of post.

Fort Egbert.—New hospital was occupied in July. Dry-earth system formerly in use has been replaced by company latrines and trough system. Sewerage system for laundry and wash rooms.

Fort Gibbon.—Drainage of parade ground has been improved. Guardhouse is being enlarged. Well water used for drinking. Sanitary condition of post satisfactory.

Fort Liscum.—During the year the water system has been completed and all inhabited buildings supplied with running water. The drinking water is excellent.

Fort St. Michael.—Water supply excellent. Sanitary condition of the post is good.

Fort William H. Seward.—The post is in a good sanitary condition, except that the water supply is exposed to contamination by post drainage and the possible infection of the small streams which flow into the tract of water adjoining the post from which the supply is obtained by means of a crude and extemporized system. During the summer the supply is much restricted and heavily loaded with organic matter.

CUBA.

These statistics only include the last three months of 1906, during which American troops were again stationed in Cuba.

The strength of the command averaged about 4,491 soldiers, though all the ratios are based on the mean annual strength of 1,123. There were 1,310 admissions to sick report, 4 discharges for disability, and 3 deaths, equivalent to rates of 1,166.52, 3.19 and 2.40, respectively, per 1,000 of strength. A constantly noneffective rate of 30.77 was recorded for troops serving in Cuba.

For disease the principal causes of admission with ratios for each were diarrhea and enteritis 211.93, venereal diseases 164.74, malarial fevers 72.13, and typhoid fever 57.88; these same four diseases also caused the greatest amount of noneffectiveness, venereal diseases leading with a rate of 7.18, typhoid fever 5.48, diarrhea and enteritis 2.26, and malaria 1.80; there were only 3 deaths, 2 from typhoid fever and 1 from fever undetermined.

TYPHOID FEVER.

Maj. H. P. Birmingham, medical inspector, Army Cuban Pacification, has made a most interesting and valuable report upon the outbreak of typhoid fever which occurred in that army. There were 65 well-authenticated cases, with 2 deaths, during the period from October 1 to December 31 in the command. In summing up the result of his careful investigation as to the mode of origin and spread of the outbreak, Major Birmingham says:

> I have been strongly impressed with two points, viz, what appears to me to be the fact that this disease was disseminated largely, if not wholly, by personal contact (either directly personal or secondarily through clothing, equipage, etc.), and, secondly, that the origin of the disease, with few exceptions, could be traced to the maneuver camps at which the troops were assembled the previous summer. An interesting fact, to which I have previously called attention, is that in the First Battalion, Twenty-eighth Infantry, which regiment was badly infected before leaving the United States, there was a cessation of the disease after the equipage and personal effects of the men were packed up on leaving the home station, and a recurrence of the disease fourteen days after arrival at their destination, after the unpacking of these probably infected articles, and this leads me to the important conclusion that an organization infected with typhoid fever should not, except in case of grave military necessity, be sent on an expedition of any kind until after segregation in a quarantine camp, provided with the necessary means of sterilizing all appurtenances, and allowing sufficient time to elapse to insure an absolute eradication of the disease.

MALARIA.

The admission and noneffective rates for these diseases—72.13 and 1.80—were considerably higher than the figures for the United States—50.27 and 1.12—but much lower than for American troops in the Philippine Islands—304.20 and 6.39.

DYSENTERY.

The admission rate for dysentery was 9.80 as compared with 5.96 for the United States and 43.86 for the Philippine Islands. There were no deaths from dysentery in Cuba.

YELLOW FEVER.

No cases occurred among enlisted men; 1 officer contracted the disease.

VENEREAL DISEASES.

The admission rate for venereal diseases—161.71—was higher than that in the United States—158.91; but the noneffective rate—7.18—was lower than that of the United States—10.90.

ALCOHOLISM.

Alcoholism caused an admission rate of 32.06, almost exactly the same as that in the United States—32.27.

DIARRHEA AND ENTERITIS.

This class of diseases gave an admission rate larger than that of the United States and Philippine Islands taken together; there were, however, no deaths from this cause.

SANITATION.

The latest report of the chief surgeon shows 19 stations garrisoned by the army. Sanitary conditions are generally fairly good.

It has been found necessary to sterilize the drinking water at nearly all posts.

At 6 stations excreta are disposed of by water carriage; the dry-earth system is used at 4 places, the McCall incinerator at 3, and the Reed trough system at 2 others.

PORTO RICO.

There has been no change in the garrison or the stations on this island since last report. The following table exhibits the movement of sick for the year among the 544 Porto Rican troops:

	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	Total.	In hospital.	Total.	In hospital.
Ratios per 1,000 of mean strength:				
Admissions to sick report	1,505.51	1,264.71	1,080.88	....
Discharges on surgeon's certificate of disability	10.99	....	7.33	....
Deaths	16.48	....	16.48	....
Total losses	27.47	....	23.81	....
Noneffective from sickness	47.92	40.44	27.03	24.54
Average number of days lost:				
For each soldier	17.49	14.76	9.87	8.96
For each case	11.62	11.67	9.13	....

The admission rate of 1,505.51 was slightly higher than that for the previous year, the discharge rate of 10.99 was a little more than half that of 1905, while the death rate of 16.48 was three times as great as that for the preceding year. The noneffective rate for the year showed an improvement compared with 1905, the respective rates being 47.92 and 57.84. The total rates were all higher for Porto Rican than for Filipino troops:

The next statement shows the causes of deaths among the Porto Ricans:

Cause of death.	Number of deaths.	Ratio per 1,000 of—	
		Mean strength.	Total deaths.
Typhoid fever	2	3.66	222.22
Pernicious malarial fever	1	1.83	111.11
Meningitis, cerebral	1	1.83	111.11
Fatty degeneration of the heart	1	1.83	111.11
Pneumonia, lobar, acute	1	1.83	111.11
Empyema, right pleura	1	1.83	111.11
Hypertrophic cirrhosis of liver	1	1.83	111.11
Pancreatitis, chronic interstitial	1	1.83	111.11
Total	9	16.48	1,000.00

The admission rate for malarial fevers increased to 259.19 per 1,000 for the year, compared with 178.19 and 120.37, the corresponding rates for the previous year and for 1904, respectively. Typhoid fever also made its appearance during the past year and contributed 9 cases and 2 deaths to the total sick rates. Dysentery increased from the low admisison rate of 3.64 for 1905 to 18.38 for the past year. There were no admissions for tuberculosis during the year, while the rate for venereal affections improved considerably.

The following table shows the seasonal prevalence of disease:

Month.	Mean strength.	Ratio per 1,000 of mean strength.								Prevailing diseases (exclusive of venereal diseases, etc.).
		All causes.					Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.		Deaths.	Noneffective.		Admissions.	Deaths.	Noneffective.	
		Total.	Hospital.		Total.	Hospital.				
Jan	546	106.23	87.91	3.65	52.11	44.78	76.92	3.65	29.84	Malaria, 4; dysentery, 3; acute bronchitis, 3; tonsillitis, 3.
Feb	546	93.41	87.91	......	39.97	38.66	56.78	......	18.05	Malaria, 3.
Mar	548	122.26	105.84	1.82	54.92	45.33	76.64	1.82	25.25	Malaria, 4.
Apr	549	114.75	81.97	......	54.22	43.35	72.86	......	23.50	Malaria, 10; acute abscess, 9 furuncle, 3.
May	548	136.86	116.79	1.82	56.04	43.80	100.36	1.82	31.32	Malaria, 13; furuncle, 8.
June	520	94.23	76.92	1.92	41.41	31.67	63.46	1.92	21.28	Malaria, 9; acute abscess, 3.
July	518	94.59	90.73	......	31.26	28.90	67.57	......	18.99	Malaria, 4; furuncle, 3.
Aug	543	116.02	90.24	......	34.93	29.88	93.92	......	24.24	Acute abscess, 9; furuncle, 5; malaria, 4.
Sept	549	125.68	109.29	......	33.15	28.90	96.54	......	22.04	Malaria, 5; acute abscess, 5.
Oct	555	135.13	113.51	......	40.16	34.52	95.50	......	23.54	Constipation, 6; diarrhea, 4; malaria, 4.
Nov	554	218.41	171.48	1.80	58.84	45.01	180.51	1.80	38.57	Malaria, 60; typhoid fever, 6; furuncle, 4.
Dec	550	143.64	129.09	5.43	75.84	68.86	96.36	5.43	46.04	Malaria, 21; typhoid fever, 3.
Total	544	1,505.51	1,264.71	16.48	47.92	40.44	1,080.88	16.48	27.03	Malaria 141; carbuncle, 38; diarrhea, including enteritis, 17; furuncle, 44; typhoid fever, 9.

Excluding venereal diseases, alcoholism, and injuries, the highest admission rate was recorded in November and the lowest in February.

The next statement shows the relative prevalence of certain special diseases among Porto Rican and Filipino native troops:

Disease.	Admission rate per 1,000 of mean strength.	
	Porto Rican troops.	Filipino troops.
Beriberi	0.00	36.98
Dhobie itch	11.03	43.08
Dengue	.00	15.55
Tropical ulcer	.00	7.14
Pemphigus contagiosus	1.84	1.05
Yaws	.00	.21
Influenza	73.53	.42
Syphilis	51.47	3.15
Chancroid	88.24	6.72
Gonorrhea	145.23	53.37
Rheumatism, articular	14.71	5.46
Malaria	259.19	393.15
Dysentery	18.38	20.38

RECRUITING.

The statement following shows the number of Porto Ricans who applied for enlistment during the year 1906, the number accepted, the number rejected on primary examination, and the number who declined enlistment, with ratios per 1,000.

TABLE A.

	Number.	Ratio per 1,000 examined.
Examined	495	1,000.00
Accepted	382	771.72
By first enlistment	188	379.80
Other enlistments	194	391.92
Rejected on primary examination	105	212.12
Declined	8	16.16

The proportion of recruits accepted was 771.72 per 1,000, a proportion but slightly higher than that for either white or colored American applicants for enlistment.

The next table shows the ages of accepted Porto Rican recruits and the proportion at each age per 1,000.

TABLE B.

Age.	Number.	Ratio.	Age.	Number.	Ratio.
18 years and under	2	5.24	30 years	8	20.94
19 years	2	5.24	31 years	9	23.56
20 years	5	13.09	32 years	5	13.09
21 years	53	138.74	33 years	8	20.94
22 years	51	133.51	34 years	2	5.24
23 years	53	138.74	35 years	1	2.62
24 years	30	78.53	36 years	1	2.62
25 years	31	81.15	37 years	3	7.85
26 years	37	96.86	38 years	1	2.62
27 years	30	78.53			
28 years	30	78.53	Total	382	1,000.00
29 years	20	52.36			

The proportion who enlisted at the age of 24 and under was 51.31 per cent, compared with 56.94 per cent and 27.69 per cent for the American white and colored recruits respectively. Four Porto Ricans under 20 years of age were enlisted, while 21 and 23 appear to be the ages at which the largest number were accepted.

The following table shows the heights of accepted recruits for the year and the proportion of each height per 1,000; also in both absolute and proportional numbers the relation of height to age:

TABLE C.—*Relation of height to age.*

ABSOLUTE NUMBERS.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
5 feet 1 inch and under		1							1	2
5 feet 2 inches										
5 feet 3 inches						3	1	3	4	11
5 feet 4 inches	1		2	6	7	2	2	8	16	44
5 feet 5 inches			1	12	10	8	5	4	21	61
5 feet 6 inches	1			14	10	15	10	5	42	97
5 feet 7 inches		1	1	7	12	9	6	2	34	72
5 feet 8 inches			1	7	7	9	1	2	23	50
5 feet 9 inches				4	1	3		5	10	23
5 feet 10 inches				3	3	1	2	1	2	12
5 feet 11 inches					1	3	1	1	2	8
6 feet							1			1
6 feet 1 inch							1			1
6 feet 2 inches and over										
Total	2	2	5	53	51	53	30	31	155	382

TABLE C.—*Relation of height to age*—Continued.

PROPORTIONAL NUMBERS.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
5 feet 1 inch and under		500.00	...						6.45	5.24
5 feet 2 inches										
5 feet 3 inches						56.60	33.33	96.77	25.81	28.80
5 feet 4 inches	500.00		400.00	113.21	137.25	37.74	66.67	258.06	103.23	115.18
5 feet 5 inches			200.00	226.42	196.08	150.94	166.67	129.03	135.48	150.69
5 feet 6 inches	500.00			264.15	196.08	226.42	333.33	161.29	270.97	253.93
5 feet 7 inches		500.00	200.00	132.08	235.29	169.81	200.00	64.52	219.35	188.48
5 feet 8 inches			200.00	132.08	137.25	169.81	33.33	64.52	148.39	130.89
5 feet 9 inches				75.47	19.61	56.60		161.29	64.52	60.21
5 feet 10 inches				56.60	58.82	18.87	66.67	32.26	12.90	31.41
5 feet 11 inches					19.61	56.60	33.33	32.26	12.90	20.94
6 feet							33.33			2.62
6 feet 1 inch							33.33	...		2.62
6 feet 2 inches and over										...
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The height of the highest proportion of accepted Porto Rican recruits, 25.39 per cent, was 5 feet 6 inches, being 1 inch below the height at which the largest proportion of both white and colored recruits were enlisted. The proportion of those approved under 5 feet 4 inches was 3.40 per cent, while but 2 of the accepted Porto Ricans were 6 feet and over.

The next table shows the weights of the Porto Rican recruits who were finally approved and the proportion of each weight per 1,000; also the relation of weight to age in both absolute and proportional numbers:

TABLE D.—*Relation of weight to age.*

ABSOLUTE NUMBERS.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
119 pounds and under	1		1	[illegible]	9	12	5	[illegible]	18	61
120 to 124 pounds		2	1	[illegible]	10	11	1	3	24	63
125 to 129 pounds	1		2	10	10	[illegible]	3	7	28	75
130 to 134 pounds				[illegible]	14	10	[illegible]	4	[illegible]	73
135 to 139 pounds			1	7	8	8	5	5	20	54
140 to 144 pounds				2	[illegible]	3	2	1	19	29
145 to 149 pounds		.			1	[illegible]	1	[illegible]	6	12
150 to 154 pounds						1			3	4
155 to 159 pounds				1		1	2		1	5
160 to 164 pounds										
165 to 169 pounds				1					2	3
170 to 174 pounds			.							.
175 to 179 pounds										
180 pounds and over									[illegible]	3
Total	2	2	5	53	51	53	30	31	155	382

TABLE D.—*Relation of weight to age*—Continued.

PROPORTIONAL NUMBERS.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
119 pounds and under	500.00		200.00	169.81	176.47	226.42	166.67	193.55	116.13	159.69
120 to 124 pounds		1,000.00	200.00	169.81	196.08	207.55	33.33	161.29	154.84	164.92
125 to 129 pounds	500.00		400.00	301.89	196.08	113.21	166.67	225.81	180.65	196.34
130 to 134 pounds				150.94	215.69	188.68	300.00	129.03	200.00	191.10
135 to 139 pounds			200.00	132.08	156.86	150.94	166.67	161.29	129.03	141.36
140 to 144 pounds				37.74	39.22	56.60	66.67	32.26	122.59	75.92
145 to 149 pounds					19.61	18.87	33.33	96.77	38.71	31.41
150 to 154 pounds						18.87			19.35	10.47
155 to 159 pounds				18.87		18.87	66.67		6.45	13.09
160 to 164 pounds										
165 to 169 pounds				18.87					12.90	7.85
170 to 174 pounds										
175 to 179 pounds										
180 pounds and over									19.35	7.85
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The weights of 19.63 per cent, the highest proportion of accepted Porto Ricans at all ages, were between 125 and 129 pounds, while the highest proportion of accepted candidates among the white and colored American troops were between 135 to 139 and 140 to 144, respectively.

The following statement shows the chest measurement of accepted Porto Rican recruits with ratios per 1,000; also the relation of age to chest measurement in absolute and proportional numbers:

TABLE E.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
30 inches and under				9	5	3		3	4	24
31 inches	1	1	1	11	11	5	3	1	11	45
32 inches			2	10	10	12	8	7	22	71
33 inches	1		1	9	10	15	4	7	37	84
34 inches				8	8	12	10	6	31	75
35 inches		1	1	3	4	4	3	5	33	54
36 inches				1	3	2	2	2	7	17
37 inches				2					6	8
38 inches									1	1
39 inches and over									3	3
Total	2	2	5	53	51	53	30	31	155	382

PROPORTIONAL NUMBERS.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
30 inches and under				169.81	98.04	56.60		96.77	25.81	62.83
31 inches	500.00	500.00	200.00	207.55	215.69	94.34	100.00	32.26	70.97	117.80
32 inches			400.00	188.68	196.08	226.42	266.67	225.81	141.94	185.86
33 inches	500.0		200.00	169.81	196.08	283.02	133.33	225.81	238.71	219.90
34 inches				150.94	156.86	226.42	333.33	193.55	200.00	196.34
35 inches		500.00	200.00	56.60	78.43	75.47	1,000.00	161.29	212.90	141.36
36 inches				18.87	58.82	37.74	66.67	64.52	45.16	44.50
37 inches				37.74					38.71	20.94
38 inches									6.45	2.62
39 inches and over									19.35	7.85
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

Over one-fourth of the 382 Porto Ricans accepted for service during the year showed a chest measurement of 33 inches. Below 33 inches the figures were 58.64 per cent, compared with 33.86 per cent for American white troops and 25.81 per cent for American colored troops. Porto Rican troops having a chest measurement above 34 inches constitute 21.73 per cent of the whole, compared with 23.35 per cent and 31.45 per cent, respectively, for American white and colored accepted applicants for enlistment.

The following statement shows the causes of rejection among Porto Rican candidates examined for enlistment during the year, with ratios per 1,000 rejected:

TABLE F.

Cause of rejection.	Number rejected.	Ratio per 1,000.
1. Venereal diseases	15	142.86
2. Underweight	11	104.76
3. Heart disease	10	95.24
4. Underheight	8	76.19
5. Chest development insufficient	8	76.19
6. Defects of vision	7	66.67
7. Defective teeth	6	57.14
8. Overweight and obesity	6	57.14
9. Defects of development, except as shown in detail	5	47.62
10. Diseases of the genito-urinary system (nonvenereal)	4	38.10
11. General diseases, except as shown in detail	3	28.57
12. Diseases of the eye, except defects of vision	3	28.57
13. Varicocele	3	28.57
14. Diseases of the circulatory system, except as shown in detail	3	28.57
15. Hernia	3	28.57
16. Hemorrhoids	2	19.05
17. Varicose veins	1	9.52
18. Other diseases of the organs of locomotion	1	9.52
19. Flat feet	1	9.52
20. Injuries	1	9.52
21. Causes not physical	4	38.09
Total	105	1,000.00

The principal causes of rejection per 1,000 examined in order of their relative importance were defects of development, 361.90; venereal diseases, 142.86; heart disease, 95.24, and defective vision, 66.67.

HAWAII.

The admission, discharge for disability, death, and constantly noneffective rates, 1,008.62, 20.16, 8.06, and 49.93, show an increase over the corresponding rates for 1905, which were 1,000, 5.68, 0.00, and 39.73.

There was 1 admission for typhoid fever and 2 for malaria. Twenty-eight per cent of all admissions and 42 per cent of all noneffectiveness from disease were caused by venereal affections.

HEALTH OF TROOPS IN THE PHILIPPINE ISLANDS.

AMERICAN TROOPS.

All the rates were higher than for 1905; this for disease as well as for external causes.

The mean strength of the command was 12,380, against 11,057 for 1905. The admission rate for all causes was 1,700.32, compared with 1,599.72 per 1,000 of strength for the preceding year. The increase in the death and discharge rates is partly accounted for by the fact that in the statistics for this year the deaths and discharges which occurred in the United States of soldiers invalided home from the Philippine Islands were for the first time charged to the country where their organizations were serving. The increase in the other rates were largely due to an epidemic of dengue and a large increase in the rates for intestinal parasites and parasitic diseases of the skin; there were, however, increases also in the rates for measles and other eruptive fevers and in those for malarial and typhoid fevers.

The rates for white troops serving in the islands exceeded those for colored troops under similar conditions in all cases except in the point of admission to sick report, the respective admission, discharge, death, and noneffective rates being 1,675.18, 11.86, 9.42, and 63.66 for white troops and 2,170.11, 2.71, 4.07, and 57.53 for the colored soldiers. These figures seem to sustain the view that colored troops are more resistant than are white soldiers to the injurious effects of tropical service.

For disease the principal causes of admission with rates for each were venereal, 310.34; malarial fevers, 304.20; diarrhea and enteritis, 130.69; dengue, 88.77; and dysentery, 43.86. The principal causes of noneffectiveness were venereal, 22.04; malarial, 6.39; dysentery, 3.22; diarrhea and enteritis, 2.27; and dengue, 1.69, and the principal causes of death, tuberculosis, 0.79; malarial fevers, 0.55; dysentery, 0.32; pneumonia, 0.32, and Asiatic cholera, 0.24.

Under external causes there were 8 admissions for sunstroke without a death and 14 deaths from drowning.

As will be seen from the following table tuberculosis caused 17.5 per cent of all deaths from disease:

Cause of death.	Number of deaths.	Ratios per 1,000 of— Mean strength.	Ratios per 1,000 of— Total deaths.
DISEASES.			
Tuberculosis (pulmonary, 8; tubercular meningitis, 2	10	0.79	175.44
Malarial fever (pernicious, 3; malignant intermittent, 2; malignant remittent, 1; hemoglobinuric fever, 1)	7	.55	122.81
Dysentery (bacillary, 2; amebic, 1; mixed infections and other dysenteries, 1)	4	.32	70.18
Pneumonia	4	.32	70.18
Cholera, Asiatic	3	.24	52.63
Cancer (epithelioma, 1; sarcoma, 1	2	.16	35.09
Alcoholism (acute, 1; chronic, 1)	2	.16	35.09
Organic heart disease	2	.16	35.09
Purulent infection and septicemia	2	.16	35.09
Gastritis	2	.16	35.09
Hepatic abscess	2	.16	35.09
Chronic parenchymatous nephritis	2	.16	35.09
Smallpox	1	.08	17.54
Erysipelas	1	.08	17.54
Syphilis, tertiary	1	.08	17.54
Other diseases of the nervous system	1	.08	17.54
Aortic aneurism	1	.08	17.54
Pulmonary embolism	1	.08	17.54
Broncho-pneumonia	1	.08	17.54
Diarrhea, acute	1	.08	17.54
Sprue	1	.08	17.54
Acute yellow atrophy of the liver	1	.08	17.54
Cholecystitis	1	.08	17.54
Peritonitis	1	.08	17.54
Appendicitis	1	.08	17.54
Unknown	2	.16	35.09
Total	57	4.52	495.65

Cause of death.	Number of deaths.	Ratios per 1,000 of—	
		Mean strength.	Total deaths.
EXTERNAL CAUSES.			
Wounds, gunshot (killed in action, 16; suicidal, 8; died of wounds received in action, 4; self inflicted while insane, 1; shot while on sentry duty, 1)	30	2.38	517.24
Drowning (all accidental)	14	1.11	241.38
Incised wounds (homicidal, 3; in action, 2; died of wounds received in action, 1; suicidal, 1)	7	.55	120.69
Stab wounds (in action)	3	.24	51.72
Fracture spine	1	.08	17.24
Crushing (threw himself before a locomotive while temporarily deranged)	1	.08	17.24
Acute morphine poisoning	1	.08	17.24
Carbolic acid poisoning (suicidal)	1	.08	17.24
Total	58	4.60	504.35
Total for disease and injury	115	9.11	1,000.00

PREVALENCE OF SPECIAL DISEASES.

TYPHOID FEVER.

The admission rate for this disease, 3.88, is increasing, being larger than for 1905, and more than twice as great as for 1904; there were, however, no deaths. Quite a severe outbreak occurred at Iloilo, giving a total of 15 cases in a mean strength of 208. The following statement shows the distribution of the cases:

Posts.	Mean strength.	Admissions.	Deaths.
Iloilo, Panay Island	208	15	....
Camp Keithley, Mindanao	948	11	....
Camp Gregg, Luzon	235	7	....
Mindanao Island, miscellaneous commands	410	3	....
Zamboanga, Mindanao	311	2	....
Camp Daraga, Luzon	250	2	....
Camp Connell, Samar	547	2	....
Malabang, Mindanao	[illegible]	1	....
Camp Stotsenburg, Luzon	1,585	1	....
Camp Wallace, Luzon	245	1	....
Fort Wm. McKinley, Luzon	2,019	1	....
Camp Jossman, Guimaras	524	1	....
Leyte Island, miscellaneous commands	277	1	....
Total		48	....

UNDETERMINED FEVERS.

The reduction in the admission rate for this class of diseases from 35.27 in 1905, to 8.97 during the past year was very gratifying as an evidence of greater accuracy of diagnosis, and accounts, in part, at least for the increase in typhoid and malarial fevers. The fevers which have been included under the heading of undetermined fevers, with the duration of the cases, are shown in the following statement:

Fevers of undetermined causation.

	Number of cases.	Number of days.	Average number of days treated.
Ephemeral fever	3	16	5.33
Febricula	41	230	5.61
Fever, type undetermined	46	371	8.07
Simple continued fever	18	247	13.71
Thermic fever	3	75	25.00
Total	111	939	8.46

Chart showing the relative admission and death rates per thousand of mean strength for typhoid fever in the Philippine Islands by years (American troops).

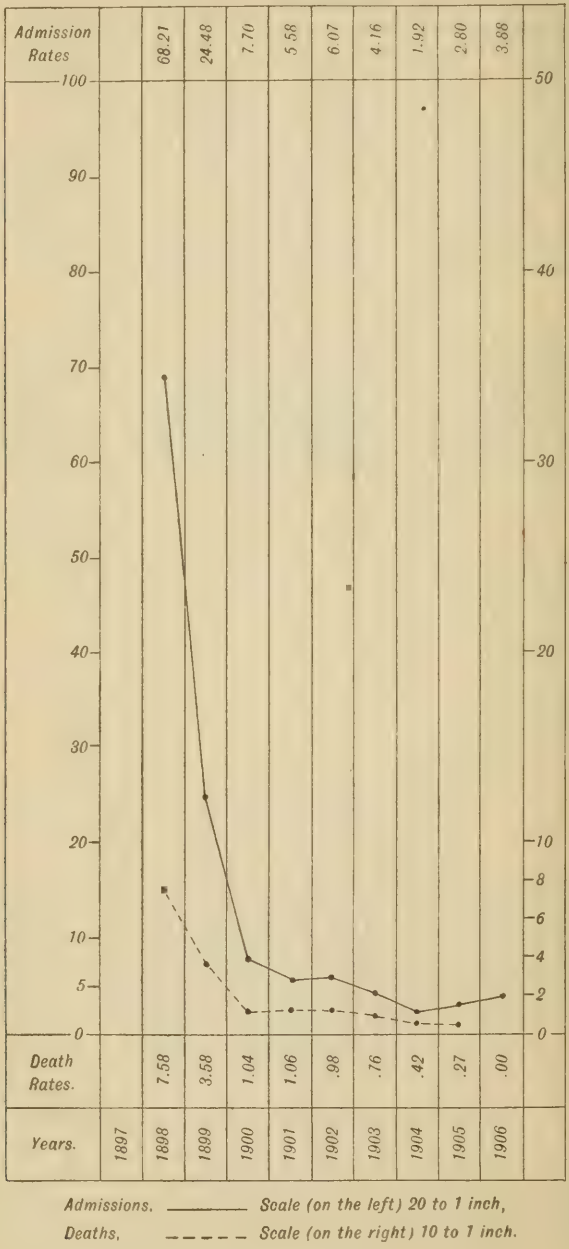
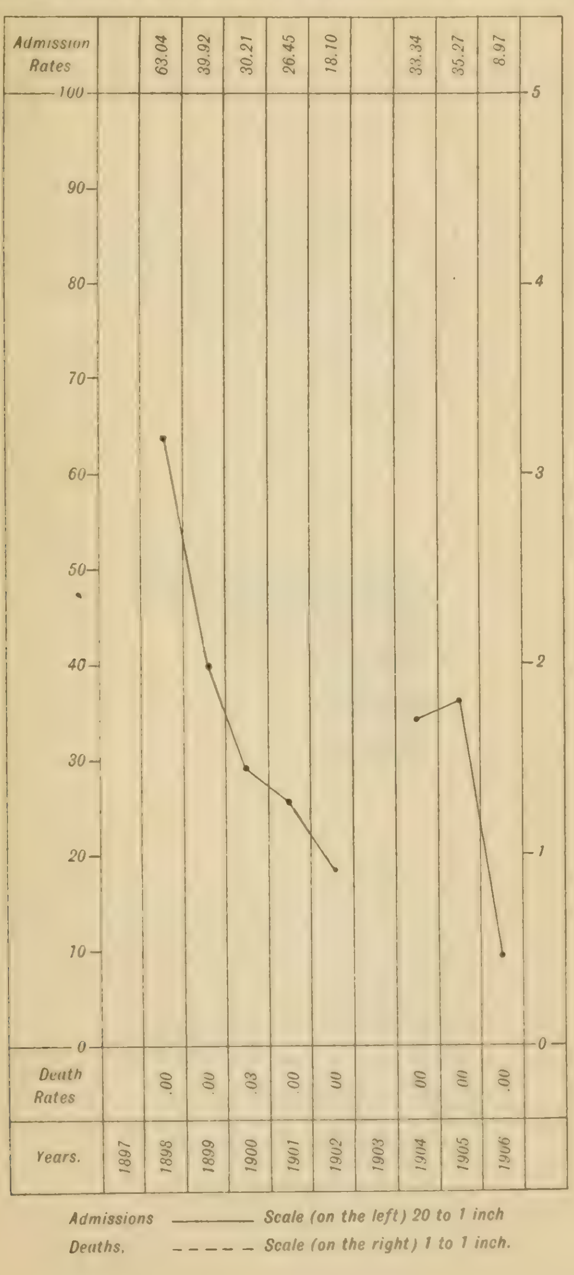


Chart showing the relative admission and death rates per thousand of mean strength for undetermined fevers, by years, in the Philippine Islands (American troops).



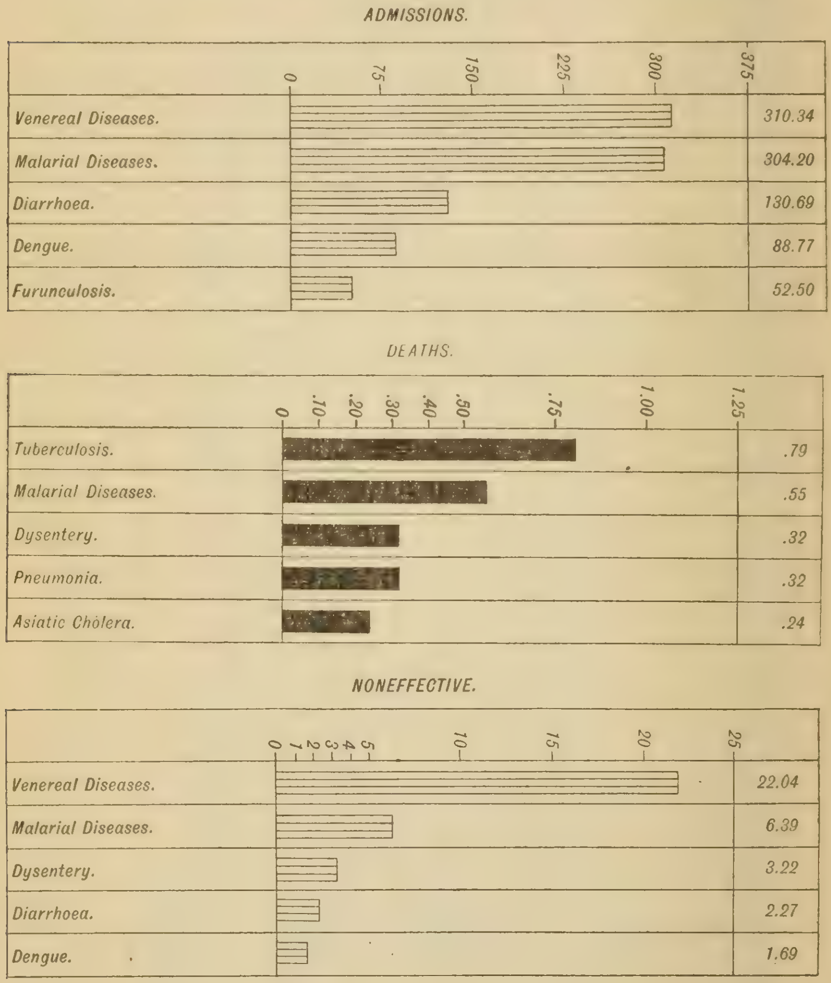
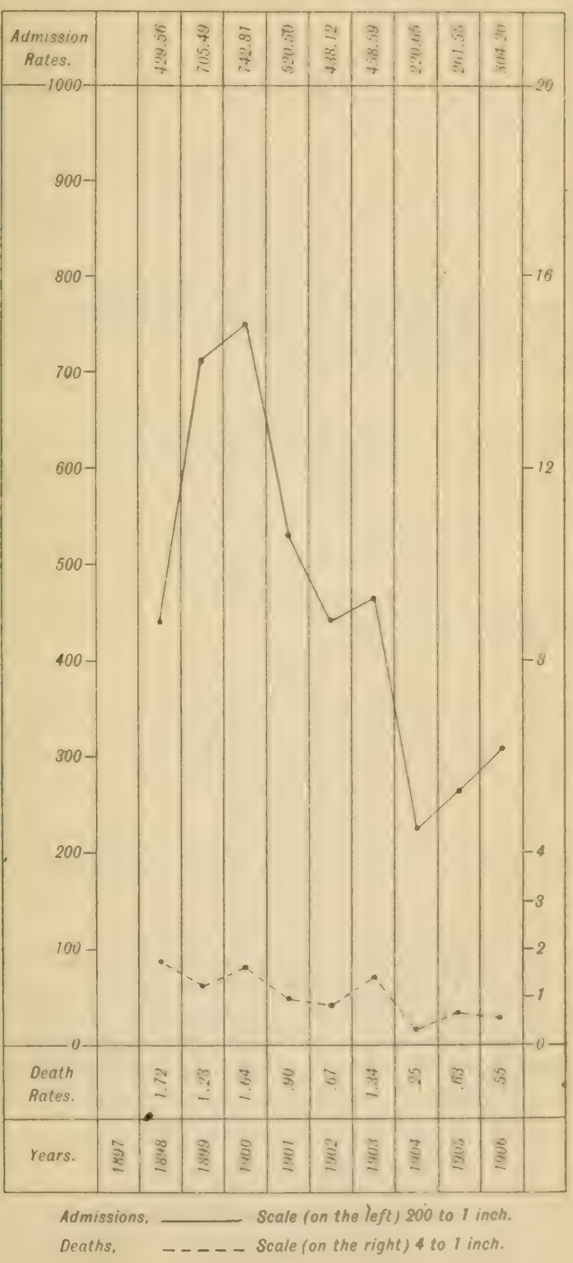


Chart showing the relative admission, death, and noneffective rates per thousand of mean strength for certain special diseases in the Philippine Islands (American troops).

Chart showing the relative admission and death rates per thousand of mean strength for malarial diseases in the Philippine Islands by years (American troops).



MALARIA.

The admission rate (304.20) and the noneffective rate (6.39) again showed a marked increase over those for the preceding year, when the rates were 261.55 and 5.22, respectively; the death rate was a little lower. The number of undetermined infections was greatly reduced, from 1,885 to 189.

MEASLES.

Measles and other eruptive fevers, except smallpox, showed a marked increase for the year.

ASIATIC CHOLERA.

There were 7 admissions with 3 deaths from this cause.

DYSENTERY.

There was a gratifying reduction in all the rates for dysentery as compared with 1905, the admission rates for the two years were 63.67 and 43.86, respectively; the amebic form occurred about seven times as often as the bacillary disease.

DENGUE.

This disease caused over a thousand admissions.

TUBERCULOSIS.

The admission rate, 5.49, was slightly lower than for last year.

VENEREAL DISEASES.

The admission, 310.34, and noneffective rates, 22.04, were both higher than for the year 1905.

ALCOHOLISM.

The rates for this disease were about the same as for last year.

INSANITY.

A slight increase was noted as compared with the rates for last year.

FILARIASIS.

There was 1 case of lymphatic varix discharged for disability during the year.

YAWS.

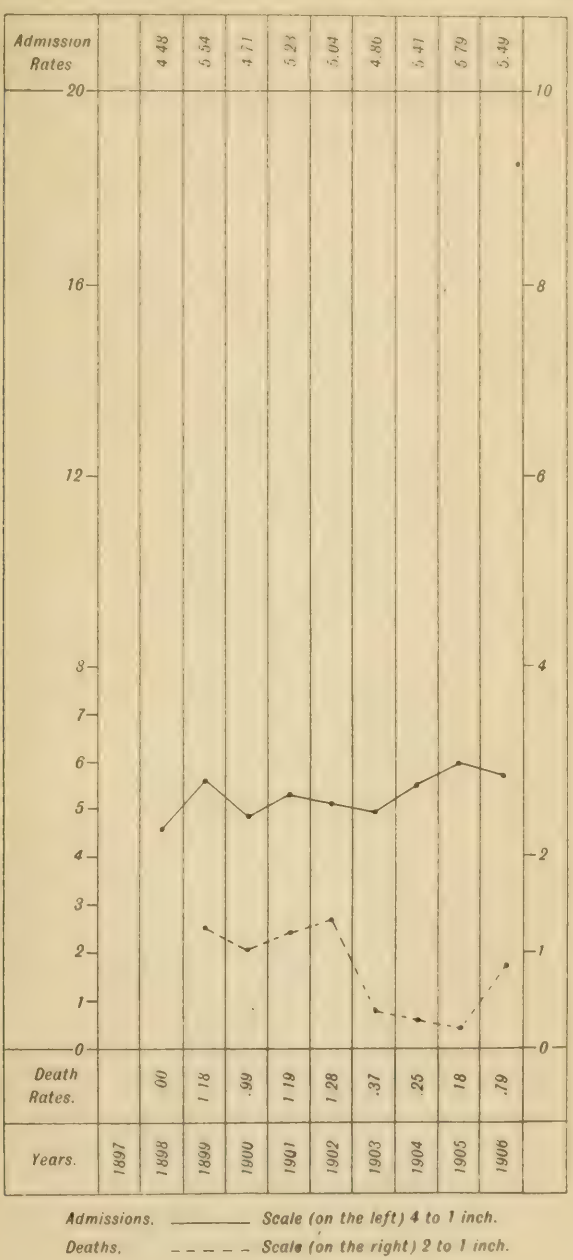
The first case of yaws occurring in an American soldier was reported March 18, 1907, by Capt. B. S. Dutcher, assistant surgeon, from Camp Bumpus, Leyte, P. I. The case was that of a musician of the First Infantry, and was probably contracted from the natives of the town, who have since been discovered to be quite extensively infected with this disease. Stained sections from one of the yaws removed from the soldier shows the presence of *Treponema pertenue* in enormous numbers.

DIARRHEA AND ENTERITIS.

The figures for this class of diseases were slightly better than for 1905.

The following table shows the movement of sick by islands and departments:

Chart showing the relative admission and death rates per thousand of mean strength for all tuberculosis in the Philippine Islands by years (American troops).



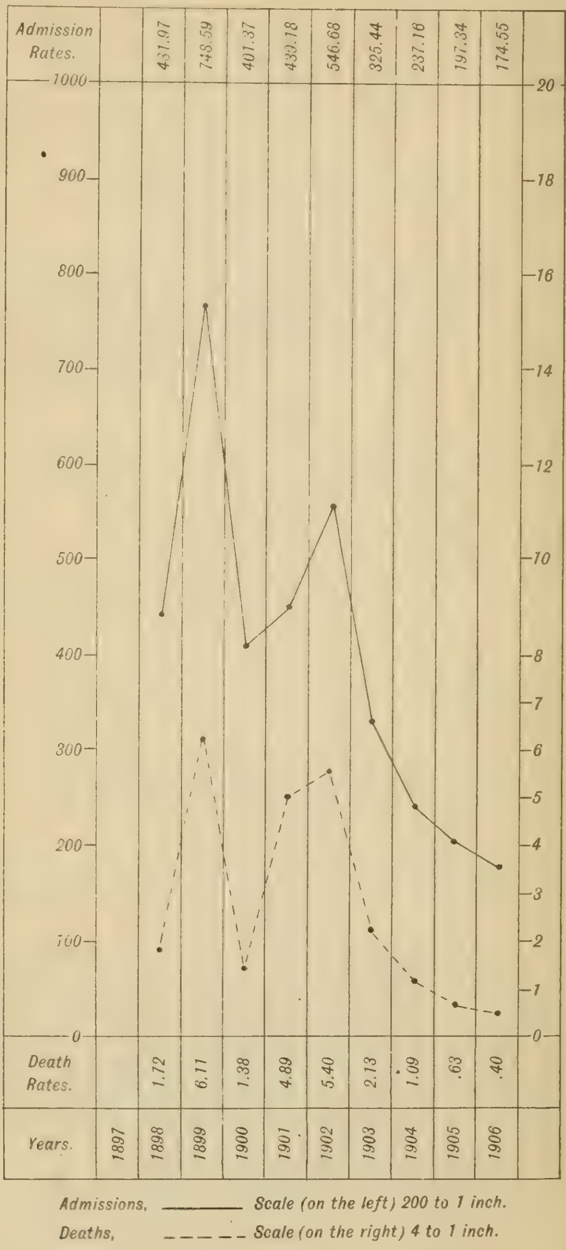
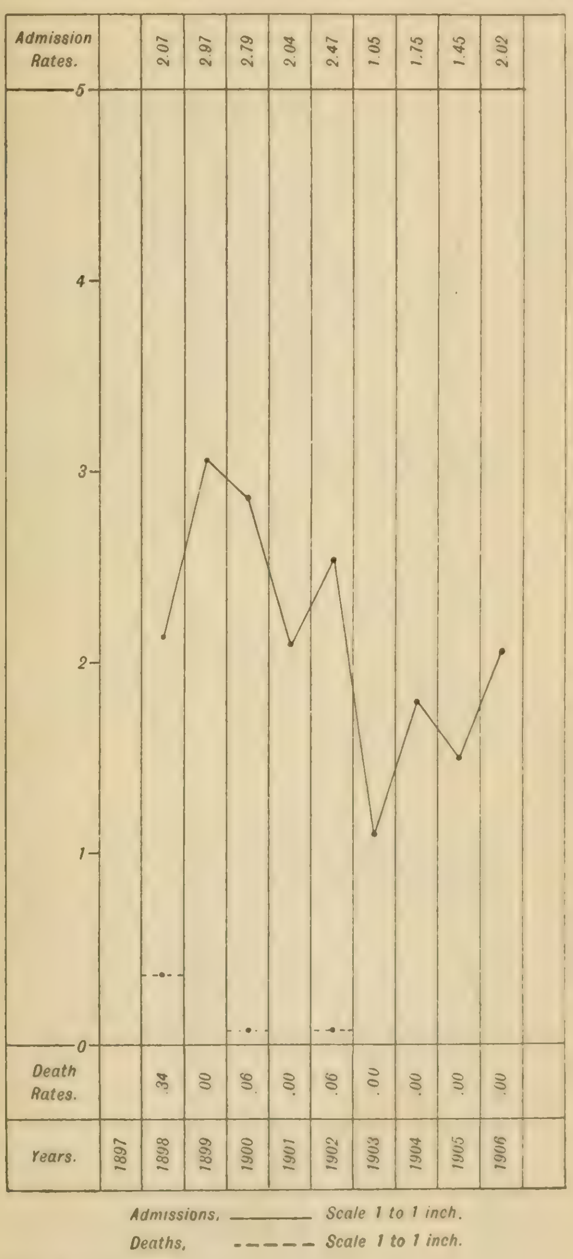


Chart showing the relative admission and death rates per thousand of mean strength for diarrheal diseases in the Philippine Islands by years (including cholera nostras, dysentery, diarrhea, and enteritis).

Chart showing the relative admission and death rates per thousand of mean strength for insanity in the Philippine Islands by years (American troops).



Movement of sick, by islands and departments.

Department and island.	Mean strength.	Ratios per 1,000 of mean strength.												Average number of days lost.			
		Admissions to sick report.		Discharges on surgeon's certificate of disability.		Deaths.		Total losses.		Noneffective from sickness.				From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
										From all causes.		Excluding injuries, venereal diseases, and alcoholism.					
		From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	From all causes.	Excluding injuries, venereal diseases, and alcoholism.	Total.	In hospital.	Total.	In hospital.	For each soldier.	For each case.	For each soldier.	For each case.
Department of Luzon	6,007	1,882.64	1,290.33	....	....	5.33	2.33	5.33	2.33	62.85	49.69	31.51	26.45	22.94	12.18	11.50	8.91
Department of the Visayas	2,635	1,710.82	1,092.22	0.38	....	11.01	4.93	11.39	4.93	53.94	43.05	29.48	22.88	19.69	11.59	10.76	9.85
Samar Island	850	1,262.35	740.00	1.18	1.18	3.53	....	4.71	1.18	37.28	31.74	16.51	13.38	13.61	10.78	6.03	8.1a
Leyte Island	817	2,014.69	1,396.57	....	....	19.58	7.34	19.58	7.34	54.47	36.03	35.76	23.40	19.88	9.87	13.05	9.35
Guimaras Island	526	1,562.74	960.08	....	....	11.41	11.41	11.41	11.41	56.40	50.89	29.30	26.71	20.59	13.17	10.70	11.14
Cebu Island	234	2,564.10	1,752.14	....	....	8.55	....	8.55	....	79.17	60.46	42.79	33.16	28.90	11.27	15.62	8.91
Panay Island	208	1,764.42	927.88	....	....	9.62	4.81	9.62	4.81	85.41	77.49	43.23	38.37	31.17	17.67	15.79	17.01
Department of Mindanao	3,623	1,395.53	964.39	....	....	11.32	3.86	11.32	3.86	50.88	44.69	27.01	24.33	18.57	13.31	9.86	10.22
Mindanao Island	2,975	1,233.61	853.78	....	....	5.71	3.03	5.71	3.03	43.96	37.42	26.04	23.17	16.05	13.01	9.50	11.13
Jolo Island	645	2,148.84	1,479.07	....	....	37.21	7.75	37.21	7.75	83.03	78.43	31.61	29.78	30.31	14.10	11.54	7.80

NOTE.—One hundred and forty-two discharges (95 excluding injuries, venereal diseases, and alcoholism) and 10 deaths occurred in the United States after invaliding home, and are not included in the above ratios, although used in calculating those for total discharges and deaths in the Philippine Islands.

For all causes the Department of Luzon had the highest admission and noneffective rates, and the Department of Mindanao the highest death rate; the lowest admission rate was noted in the Department of Mindanao and the lowest death rate in the Department of Luzon.

Excluding injuries, venereal diseases, and alcoholism, the highest admission and death rates were recorded in the Department of Luzon and Department of the Visayas respectively; the Department of Luzon also showed the highest noneffective rate for the year; on the other hand, the Department of Mindanao showed the lowest admission rate, the Department of Luzon the lowest death rate, and the Department of the Visayas the lowest noneffective rate.

By islands, Cebu had the highest and Mindanao the lowest admission rate from all causes; Jolo the highest and Samar the lowest death rate, and Panay the highest and Samar the lowest noneffective rate for the year. Excluding injuries, venereal diseases, and alcoholism Cebu had the highest and Samar the lowest admission rate; Guimaras the highest and Luzon the lowest death rate, and Panay the highest and Samar the lowest noneffective rate for the year.

Taking the largest posts as shown in International Table No. V, the post having the highest admission rate was Warwick Barracks, with Camp Stotsenburg next, and Camp Downes third; the lowest rate was noted at Camp Overton, Mindanao. The highest death rate was reported from Jolo, the next highest from Camp Bumpus; there was no death at Camp Wilhelm during the year.

The seasonal prevalence of certain special diseases is indicated in the following table:

[Ratio per 1,000 of mean strength.]

Month.	Cholera.	Typhoid fever.	Malaria.	Fevers, undetermined causation.	Beriberi.	Dysentery.	Diarrhea (including enteritis).	Diseases of the liver.	Tuberculosis.	Pneumonia.
ADMISSIONS.										
January	....	0.69	28.33	0.87	....	3.12	7.11	0.61	0.35	0.17
February	....	.51	19.89	.43	....	1.96	7.68	.34	.68	....
March	....	.25	21.70	.49	....	2.78	10.48	.33	.74	....
April	....	.08	35.73	1.06	....	2.64	8.38	.76	.53	.15
May	....	.15	25.61	.66	....	2.73	10.85	.37	.66	.07
June	0.15	.15	22.54	1.49	0.07	2.39	26.87	.60	.30	....
July	.22	.30	21.11	.96	....	3.70	18.52	.44	.52	....
August	.08	1.01	48.62	.54	....	4.16	9.63	.39	.46	.08
September	....	....	29.43	.65	....	4.74	8.34	.49	.33	....
October	.09	.26	17.06	.35	....	6.88	6.36	.78	.26	....
November	....	.17	14.12	.61	....	4.88	5.88	.78	.17	....
December	....	.36	16.49	.71	....	4.37	7.66	.71	.45	....
Total	.57	3.88	304.20	8.97	.08	43.86	130.69	6.54	5.49	.48
DEATHS.										
January	....	....	....	....	....	....	....	....	....	....
February	....	....	....	....	....	....	....	....	.08	.08
March	....	....	.15	....	....	....	....	.08	.15	.08
April	....	....	.07	....	....	....	....	.07	.07	....
May	....	....	.07	....	....	....	....	.07	....	.07
June	.07	....	....	....	....	....	....	....	.14	....
July	.15	....	....	....	....	....	....	....	.07	....
August	....	....	....	....	....	.15	....	....	.08	.08
September	....	....	.16	....	....	.08	.08	....	.08	....
October	....	....	....	....	....	.09	....	....	.09	....
November	....	....	....	....	....	....	....	....	....	....
December	....	....	.09	....	....	....	....	....	....	....
Total	.24	....	.55	....	....	.32	.08	.24	.79	.32

The admission rate for cholera was highest in July, for typhoid and malarial fevers the rates were highest in August. Dysentery was most prevalent in October, diarrhea in June, and tuberculosis in March.

The next table shows the influence of season on the general rates:

Month.	Mean strength.	Ratios per 1,000 of mean strength.								Prevailing diseases (exclusive of venereal diseases, etc.)
		All causes.					Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.		Deaths.[a]	Noneffective		Admissions.	Deaths.	Noneffective.	
		Total.	Hospital.		Total.	Hospital.				
Jan......	11,542	124.76	106.91	.35	54.01	49.01	82.22	.17	27.74	Malarial fever, 327; diarrhea, 82; furuncle, 42; alcoholism, 41.
Feb......	11,717	114.96	96.36	.33	53.99	47.21	66.14	.25	25.21	Malarial fever, 233; diarrhea, 90; dyspepsia, 42; furuncle, 40.
Mar......	12,210	150.61	126.29	2.00	67.72	56.40	89.10	.54	31.96	Malarial fever, 265; diarrhea, 128; furuncle, 46; mumps, 40.
Apr......	13,240	153.40	118.66	.86	76.73	59.32	102.80	.36	40.18	Malarial fever, 473; diarrhea, 111; furuncle, 59; muscular rheumatism, 43.
May.....	13,549	141.63	103.55	.79	69.09	50.93	96.02	.51	35.13	Malarial fever, 347; diarrhea, 147; furuncle, 69; dyspepsia, 44.
June.....	13,398	150.99	115.46	.51	70.01	54.89	105.09	.43	36.55	Diarrhea, 360; malarial fever, 302; furuncle, 75; dengue, 42.
July.....	13,500	151.18	123.56	.51	63.80	52.49	108.81	.29	35.02	Malarial fever, 285; dengue, 262; diarrhea, 250; furuncle, 86.
Aug......	12,981	176.87	146.91	.61	63.94	54.87	135.83	.38	39.33	Malarial fever, 631; dengue, 281; diarrhea, 125; furuncle, 72.
Sept.....	12,234	147.95	115.91	.99	61.72	54.19	104.71	.49	38.81	Malarial fever, 360; dengue. 213; diarrhea, 102; dysentery, 58.
Oct......	11,487	137.02	106.38	.78	59.33	51.53	90.36	.52	35.47	Malarial fever, 196; dysentery, 79; diarrhea, 73; dengue, 70.
Nov.....	11,476	119.82	96.20	.17	58.58	51.86	78.52	.09	33.70	Malarial fever, 162; diarrhea, 64; dysentery, 56; dengue, 55.
Dec......	11,223	120.74	96.49	1.13	56.28	49.12	82.24	.17	31.19	Malarial fever, 185; diarrhea, 86; dengue, 68; dysentery 49.
Total..	12,380	1,700.32	1,359.37	9.11	63.35	52.81	1,151.62	4.28	34.41	Malarial fever, 3,766; diarrhea, 1,618; dengue, 1,099; furuncle, 650.

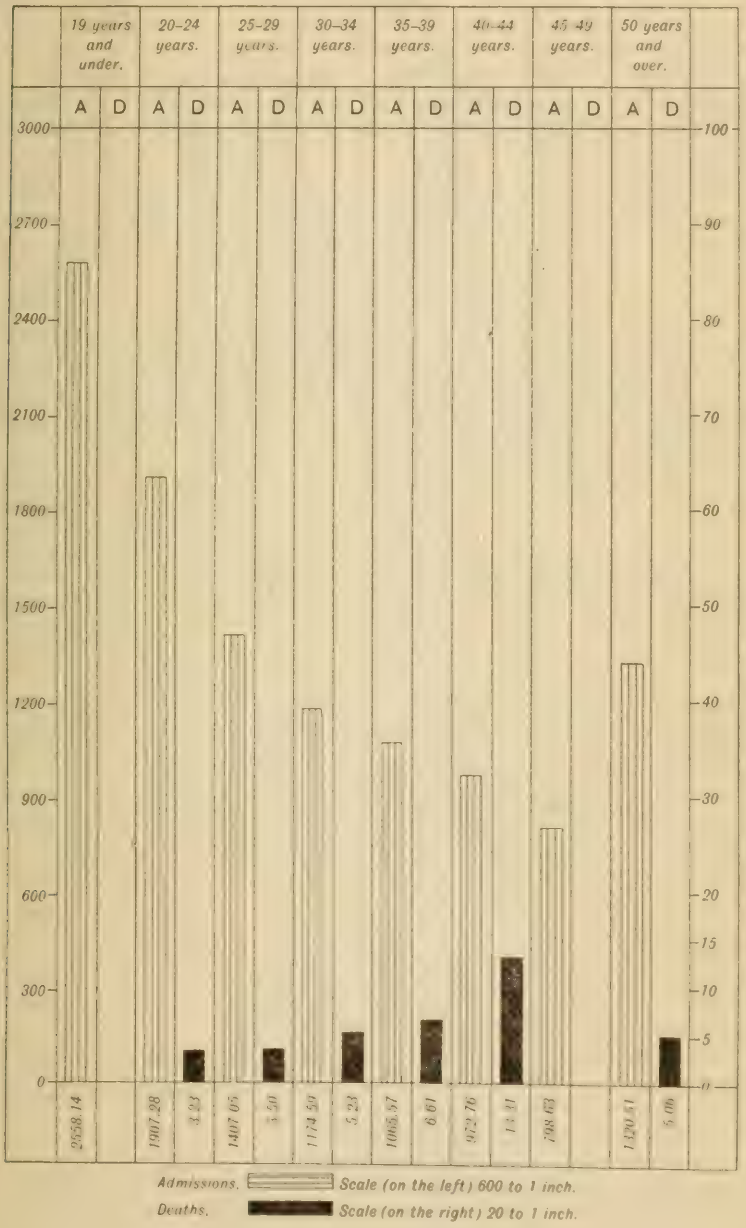
[a] Ratios for deaths based on mean strength, "present and absent," total, 12,622.

Excluding injuries, venereal diseases, and alcoholism, the highest admission, death, and noneffective rates were noted in August, March, and April, respectively, and the lowest admission, death, and noneffective rates in February, November, and February.

INFLUENCE OF AGE.

It will be seen from the following table that the highest admission rate occurred in soldiers 19 years old and under, the lowest in those between the ages of 45 and 49, the highest discharge and noneffective rates in those 19 and under; the lowest noneffective rate in those 45 to 49; the highest death rate was recorded for those soldiers between the ages of 40 and 44, and the lowest among those 20 to 24 years of age:

Chart showing by ages the relative admission and death rates for disease per thousand of mean strength in the Philippine Islands (American troops).



Age.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
19 years and under	129	330	2	......	12.69	2,558.14	15.38	......	98.35
20 to 24 years	4,260	8,125	34	14	304.37	1,907.28	7.85	3.23	71.45
25 to 29 years	4,196	5,904	32	15	224.75	1,407.05	7.47	3.50	53.56
30 to 34 years	1,873	2,200	19	10	88.45	1,174.59	9.94	5.23	47.22
35 to 39 years	1,037	1,105	11	7	41.53	1,065.57	10.39	6.61	40.04
40 to 44 years	514	500	6	7	20.71	972.76	11.41	13.31	40.29
45 to 49 years	293	234	3	......	8.36	798.63	10.00	......	28.55
50 years and over	78	103	....	4	3.03	1,320.51	....	5.06	38.81
Total for disease.	12,380	18,501	107	57	703.89	1,494.43	8.48	4.52	56.86

INFLUENCE OF LENGTH OF SERVICE.

As shown in the next table, the highest admission and noneffective rates were reported for soldiers of less than one year's service and the highest death rate for those who had served ten years and over. The lowest noneffective rate occurred in soldiers who had between three and four years of army duty.

Length of service.	Mean strength.	Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.	Ratios per 1,000 of mean strength.			
						Admitted.	Discharged on surgeon's certificate of disability.	Died.	Constantly noneffective.
Under 1 year	1,274	2,465	16	4	98.62	1,934.85	12.32	3.08	77.40
1 to 2 years	2,491	4,474	31	7	174.96	1,796.07	12.23	2.76	70.23
2 to 3 years	2,018	3,091	13	3	113.79	1,531.71	6.33	1.46	56.39
3 to 4 years	1,170	1,441	7	7	54.12	1,231.62	5.88	5.88	46.25
4 to 5 years	1,106	1,554	6	7	60.96	1,405.06	5.35	6.24	55.11
5 to 10 years	2,990	4,142	23	16	154.28	1,385.28	7.51	5.23	51.60
10 years and over	1,331	1,334	11	13	47.16	1,002.25	8.08	9.55	35.43
Total for disease	12,380	18,501	107	57	703.89	1,494.43	8.48	4.52	56.86

The following statement shows the causes of discharge for disability among troops serving in the Philippine Islands. Of the total number discharged, in 15.4 per cent the causes were not contracted in line of duty:

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharges for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES.							
General diseases	51	47.66	38		13		
Tuberculosis (of the lungs, 28; of other organs, 1)	29	27.10	29				
Venereal diseases	11	10.28			11		
Syphilis	2	1.86			2		
Gonorrhea (ophthalmia, 2; rheumatism, 7)	9	8.41			9		
Dysentery (amebic, 5; mixed, 2)	7	6.54	7				
Chronic articular rheumatism	2	1.86	2				
Addison's disease	1	.93	1				
Drug habit (morphinism)	1	.93			1		
Diseases of the nervous system	26	24.29	21		5		
Insanity	17	15.88	14		3		
Epilepsy	2	1.86	1		1		
Neuralgia	2	1.86	2				
Paralysis without specified cause	2	1.86	2				
Locomotor ataxia	1	.93	1				
Neuritis	1	.93	1				
Chronic masturbation	1	.93			1		
Diseases of the organs of special sense	9	8.41	9				
Diseases of the middle and internal ear	7	6.54	7				
Iritis	1	.93	1				
Optic neuritis	1	.93	1				
Diseases of the circulatory system	9	8.41	9				
Organic heart disease	7	6.54	7				
Filariasis	1	.93	1				
Functional disease (cardiac neurosis)	1	.93	1				
Diseases of the digestive system	6	5.60	4		2		
Gastritis	2	1.86	2				
Hernia (inguinal)	2	1.86	2				
Enteritis	1	.93			1		
Cirrhosis of the liver	1	.93			1		
Diseases of the organs of locomotion	3	2.80	3				
Synovitis	2	1.86	2				
Muscular rheumatism	1	.93	1				
Diseases of the respiratory system	2	1.86	2				
Asthma	1	.93	1				
Emphysema	1	.93	1				
Senile debility	1	.93	1				
Total	107	100.00	88		19		
INJURIES.							
Gunshot wounds	16	44.44	14		2		
Fractures	7	19.44	7				
Incised wounds	3	8.33	3				
Sprains	2	5.55	2				
Lacerated wounds	2	5.55	2				
Dislocation	1	2.77	1				
Muscular strain	1	2.77	1				
Punctured wound	1	2.77	1				
Crushing	1	2.77	1				
Secondary result of injuries	1	2.77			1		
Sunstroke	1	2.77	1				
Total	36	100.00	33		3		
Grand total	143	100.00	121		22		
Diseases	107	74.82					
Injuries	36	25.17					

NOTE.—Of the 143 discharges reported on this table, only one was made in the Philippine Islands; the others, 106 for diseases and 36 for injuries, were those of cases invalided home and discharged in the States. This table does not include 38 discharges for disabilities which existed prior to Philippine service.

INVALIDED HOME.

The number of enlisted men invalided home from the Philippine Islands in 1906 was 360, giving an invaliding ratio of 29.08 per thousand, compared with 29.03 for the previous year.

Diarrheal diseases, including dysentery, diarrhea, and sprue; tuberculosis, insanity, and venereal diseases caused over 50 per cent of the total invaliding.

Of the total sent home 3.33 per cent died, 33.33 per cent were discharged on surgeon's certificate of disability, 21.67 per cent were returned to duty, and 30.56 per cent were remaining at the end of the year, as exhibited in the following statement:

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on surgeon's certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
Tuberculosis	62	17.22	2	17	7	3	33
Dysentery	59	16.39	28	4		9	18
Injuries	33	9.17	2	23	1	3	4
Insanity	27	7.50	2	16		2	7
Diseases of the middle and internal ear	14	3.89	3	8		2	1
Organic disease of the heart	11	3.06	3	6		1	2
Sprue	11	3.06	6			2	3
Gonorrhea	11	3.06		8		1	2
Rheumatism	10	2.78	1	2			6
Syphilis	10	2.78	3	1	1	2	3
Neurasthenia	9	2.50	3			1	5
Congenital malformation and arrested development	9	2.50	1	8			
Pleurisy	6	1.67	2				3
Functional disease of the heart	5	1.39	2	3			
Errors of refraction	5	1.39		4			1
Malaria	5	1.39	2			2	1
Epilepsy	4	1.11	2	2			1
Retinitis	4	1.11	1	2			
Gastritis	4	1.11	1	1			2
Chronic nephritis	4	1.11			1	2	1
Synovitis	3	.83		2			1
Asthma	3	.83		1		2	
Paralysis without specified cause	3	.83		1		1	1
Chronic alcoholism	3	.83	1			1	1
Arthritis	2	.56	1				1
Tropical ulcer	2	.56				1	1
Other diseases of the kidneys	2	.56				2	
Inguinal hernia	2	.56		2			
Other diseases of the nervous system	2	.56	1	1			
Neuritis	2	.56					2
Chorea	2	.56		2			
Melancholia	2	.56	2				
Narcotic poisoning, chronic	2	.56		1			1
Scurvy	1	.28			1		
Exophthalmic goiter	1	.28					1
Other general diseases	1	.28			1		
Anemia	1	.28					1
Other diseases of the eye and its adnexa	1	.28					1
Trachoma	1	.28					1
Ankylostoma duodenale	1	.28	1				
Disease of the mastoid	1	.28				1	
Other diseases of the arteries	1	.28	1				
Chronic nasal catarrh	1	.28	1				
Chronic bronchitis	1	.28	1				
Diarrhea, chronic	1	.28	1				
Biliary calculi	1	.28					1
Fistula in ano	1	.28	1				
Acute hepatitis	1	.28	1				
Hepatic abscess	1	.28				1	
Jaundice, catarrhal	1	.28				1	
Appendicitis and abscess of iliac fossæ	1	.28					1
Other diseases of the stomach except cancer	1	.28	1				
Other diseases of the bladder	1	.28	1				
Periostitis	1	.28		1			
Other nontubercular diseases of the bones.	1	.28					1

Cause.	Number of cases.	Percentage of total cases.	Duty.	Discharged on surgeon's certificate of disability.	Died.	Otherwise disposed of.	Remaining at end of year.
Bunion	1	0.28		1			
Other diseases of the joints except tuberculosis and rheumatism	1	.28		1			
Muscular rheumatism and myalgia	1	.28					1
Debility following operation and disease	1	.28		1			
Under observation undiagnosed and unknown	1	.28					1
Pulmonary emphysema	0			1			
Total cases	360		78	120	12	40	110
Percentage of total dispositions			21.67	33.33	3.33	11.11	30.56

This table shows all cases invalided home in the year, together with their dispositions in the same period. Of the discharges on surgeon's certificate of disability 38 were for causes existing previous to service in the Philippines and 82 for disabilities incurred in that service; besides these 60 of the cases invalided home previous to January 1, 1906, were discharged for disabilities incurred in Philippine service, a total of 142, chargeable to that service.

FILIPINO TROOPS.

With a mean strength of 4,759 there were 1,316.03 admissions per 1,000 to sick report, the rate being slightly higher than that for the year 1905. The death and discharge rates of 11.51 and 10.12 for the year also showed an increase compared with 10.71 and 4.24, the corresponding rates for the preceding year. The noneffective rate was about the same as for 1905.

The following table shows the movement of sick for the year:

	From all causes.		Excluding injuries, venereal diseases, and alcoholism.	
	Total.	In hospital.	Total.	In hospital.
Ratios per 1,000 of mean strength:				
Admissions to sick report	1,316.03	850.81	1,109.69	
Discharges on surgeon's certificate of disability	10.12		9.13	
Deaths	11.51		8.93	
Total losses	21.63		18.06	
Noneffective from sickness	34.79	26.88	27.68	21.92
Average number of days lost:				
For each soldier	12.70	9.81	10.10	8.00
For each case	9.65	11.53	9.11	

For disease the principal causes of admission with ratios for each were malaria, 393.15; diarrhea and enteritis, 95.40; bronchitis, 67.03; venereal diseases, 63.25; and beriberi, 36.98. The corresponding ratios for the previous year were 572.70, 61.92, 45.64, 59.78, and 35.93, the rate for malaria being a decided improvement over the rate for those diseases in 1905.

A special report received from Assistant Surgeon Cole, on duty in the Philippine Islands, would seem to indicate that uncinariasis is exceedingly prevalent among the natives of the Philippines. This infection was found present in over 50 per cent of the men examined in one company of Philippine Scouts. According to Doctor Cole's experience the New World hook-worm, *Uncinaria americana*, is the variety usually found.

The causes of death are shown in the table following.

Cause of death.	Number of deaths.	Ratio per 1,000 of—	
		Mean strength.	Total deaths.
DISEASES.			
Beriberi	9	1.79	200.00
Asiatic cholera	8	1.59	177.78
Malarial fever (malignant remittent, 3; malignant intermittent, 1; pernicious, 2)	6	1.19	133.33
Tuberculosis (miliary, 2; tubercular peritonitis, 1)	3	.60	66.67
Amebic dysentery	3	.60	66.67
Organic heart disease	3	.60	66.67
Appendicitis	3	.60	66.67
Cancer	2	.40	44.44
Typhoid fever	1	.20	22.22
Cerebro-spinal meningitis, acute	1	.20	22.22
Septicemia	1	.20	22.22
Anemia due to purpura hemorrhagica	1	.20	22.22
Pneumonia	1	.20	22.22
Enteritis, catarrhal	1	.20	22.22
Intestinal obstruction	1	.20	22.22
Shock and exposure from bathing in extremely cold water	1	.20	22.22
Total	45	8.93	1,000.00
EXTERNAL CAUSES.			
Gunshot wounds (in action, 3; accidental, 1; shot by sentry, 1)	5	.99	384.62
Accidental drowning	4	.79	307.69
Punctured wounds (homicides)	2	.40	153.85
Burn	1	.20	76.92
Effects of chloroform anesthesia	1	.20	76.92
Total	13	2.58	1,000.00
Total for disease and injury	58	11.51	

The death rate for tuberculosis was much lower than for 1905, the respective rates being 0.60 and 1.41. The death rate from beriberi increased slightly for the year, 1.79, compared with 1.21, the corresponding rate for the previous year.

The next table shows all discharges for disability.

Cause of discharge.	Number of cases.	Percentage of total discharges.	Discharges for disability.				
			In line of duty.	Not in line of duty.		Discharges for disability within three months after enlistment.	
				Contracted before enlistment.	Contracted after enlistment.	In line of duty.	Not in line of duty.
DISEASES.							
Tuberculosis, pulmonary	24	51.06	23	1			1
Beriberi	6	12.77	6			1	
Insanity	3	6.38	2	1			
Organic heart disease	3	6.38	3				
Dysentery	2	4.26	2				
Myopia	2	4.26	1	1			
Malarial cachexia	1	2.13	1				
Syphilis	1	2.13			1		
Hypochondria	1	2.13	1				
Melancholia	1	2.13	1				
Night blindness	1	2.13		1			
Ventral hernia	1	2.13	1				
Feeble minded	1	2.13		1			
Total	47	100.00	41	5	1	1	1
EXTERNAL CAUSES.							
Lacerated wounds	2	50.00	2				
Gunshot wounds	2	50.00	2				
Total	4	100.00	4				

Tuberculosis alone caused over 50 per cent of all discharges for disease.

The influence of season is shown in the next statement.

	Mean strength.	Ratios per 1,000 of mean strength.								
		All causes.					Exclusive of venereal diseases, alcoholism, and injuries.			
		Admissions.		Deaths.	Noneffective.		Admissions.	Deaths.	Noneffective.	
		Total.	Hospital.		Total.	Hospital.				
Jan	4,821	93.55	63.47	0.98	36.53	28.13	81.10	0.59	29.96	Malaria, 165; diarrhea, 30; beriberi, 23.
Feb	4,895	81.51	52.91	.78	32.85	25.44	68.64	.59	27.05	Malaria, 114; diarrhea, 31; acute bronchitis, 18.
Mar	4,863	94.59	63.13	.98	34.18	26.93	74.44	.98	25.58	Malaria, 114; diarrhea, 30; acute bronchitis, 16.
Apr	4,622	113.80	70.53	.59	36.84	27.64	90.00	.59	26.64	Malaria, 117; diarrhea, 28; acute bronchitis, 23.
May	4,707	101.76	67.98	.40	31.47	24.94	78.18	.20	22.55	Malaria, 94; constipation, 32; diarrhea, 27.
June	4,707	116.42	84.98	.20	33.50	27.75	103.25	.20	27.14	Malaria, 147; diarrhea, 79; acute bronchitis, 36.
July	4,744	134.91	81.58	.99	35.43	26.25	117.41	.99	29.10	Malaria, 228; diarrhea, 74; acute bronchitis, 35.
Aug	4,907	135.93	82.54	.80	33.49	25.13	115.14	.80	26.91	Malaria, 238; diarrhea, 35; beriberi, 24.
Sept	4,779	124.71	76.58	1.20	37.65	29.74	109.44	1.00	31.30	Malaria, 226; diarrhea, 40; beriberi, 22.
Oct	4,784	107.44	67.73	2.60	34.86	27.93	91.56	1.20	28.20	Malaria, 110; acute bronchitis, 36; diarrhea, 31.
Nov	4,683	99.29	64.06	1.20	35.50	27.48	84.56	1.00	29.31	Malaria, 142; diarrhea, 29; acute abscess, 24.
Dec	4,595	112.73	75.95	.80	35.28	25.42	96.41	.80	28.60	Malaria, 176; acute bronchitis, 30; beriberi, 23.
Total	4,759	1,316.03	850.81	11.51	34.79	26.88	1,109.69	8.93	27.68	Malaria, 1,871; diarrhea, 454; acute bronchitis, 299; constipation, 213; acute abscess, 213.

Excluding venereal diseases, alcoholism, and injuries, which were practically independent of seasonal influences, the highest admission rate was recorded in July, the lowest in February; the highest death rate in October, the lowest in May and June; the highest noneffective rate in September, the lowest in May.

Three enlisted men were killed in action and 3 wounded. All the killed and 2 of the wounded were by gunshot. The wounded recovered. One officer of scouts was killed in action by gunshot wound of head.

Detailed information is shown in the following tables:

PHILIPPINE SCOUTS.

Killed in action by gunshot.

Character and location of wound.	Missile. .45-caliber ball.
Skull fracture	1
Unknown, body not recovered	2
Total	3

NOTE.—One lieutenant of scouts was killed in action by gunshot wound of head. Not included in any table.

Wounds received in action by gunshot.

Character and location of wound.	Missile.		Disposition.	
	Caliber unknown.	Dog chain.	Duty.	Discharged, surgeon's certificate of disability.
Thorax, nonpenetrating		[a]1	1	
Leg, fracture	1			1

[a] Dog chain fired from lantaka.

Wounds received in action other than gunshot.

Character and location of wound.	Weapon, spear.	Disposition, duty.
Thorax, penetrating	1	1

SURGICAL OPERATIONS.

One hundred and twenty-one surgical operations were performed upon Philippine scouts, of which 116 were successful. There were 4 deaths.

Surgical operations performed on Philippine scouts.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Eye.										
Excision	Pterygium	3	2	1						3	
	Thorax.										
Thoracoplasty	Empyema	2	1			1		2			
	Abdomen.										
Exploratory celiotomy	Sarcoma, visceral	1				1		1			
Appendectomy	Appendicitis	2				2	2				
Bassini operation	Inguinal hernia	6	6				3	3			
	Anus and rectum.										
Excision, 1; curettage, 1	Fistula in ano	2	2					2			
Clamp and cautery, 2; ligation, 2; excision, 1.	External hemorrhoids, 3; hemorrhoids, site not stated, 2.	5	5				1	1		3	
	Genito-urinary system.										
Low excision	Varicocele	1	1				1				
Excision of sac	Hydrocele	1	1					1			
Lumbar incision	Perinephritic abscess	1	1				1				
Circumcision	Phimosis, 8; paraphimosis, 1	9	9				6			3	
	Nervous system.										
Removal of depressed frontal bone, 1 inch diameter, over longitudinal sinus.	Insanity	1	1				1				

Surgical operations performed on Philippine scouts—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Skin and cellular tissues.										
Incision and curettage	Fistula	1	1								1
Incision and drainage	Cellulitis	4	4							4	
Do	Abscess	54	54				2	16		4	32
	Lymphatic glands.										
Incision and drainage	Axillary adenitis	1	1								1
Incision and drainage, 13; excision, 1.	Inguinal adenitis, venereal, 3; nonvenereal, 2; cause not stated, 9.	14	14				4	1		4	5
	Bones.										
Resection and wiring	Ununited fracture of tibia	1	1					1			
Partial extra articular osteotomy.	Osteomyelitis	1	1				1				
	Amputations.										
Amputation, forearm, lower third.	Gunshot wound hand and wrist.	1	1				1				
Amputation, thumb	Injury	1	1				1				
Amputation, thigh, lower third.	Cystic tumor, involving entire sural region of leg.	1	1					1			
	Tumors.										
Excision	Cystic, 3; lipoma, 1; myoma, 1; sebaceous, 3.	8	8					1		5	2
Total number of cases		121	116	1		4	24	30		26	41

RECRUITING.

The following table shows the results obtained from the examination of Filipino applicants for enlistment during the year in both absolute and proportional numbers:

TABLE A.

	Number.	Ratio per 1,000 examined.
Examined	600	1,000.00
Accepted	527	878.33
By first enlistment	314	523.33
Other enlistments	213	355.00
Rejected on primary examination	72	120.00
Declined	1	1.67

The number of recruits enlisted during the last year was slightly more than a third of the number enlisted in 1905, and the proportion accepted was 878.33 per thousand examined, compared with 900.50 for the previous year.

The statement following shows the ages of all accepted Filipino recruits and the proportion at each age per 1,000.

TABLE B.

Age.	Number.	Ratio.	Age.	Number.	Ratio.
18 years and under	5	9.49	30 years	19	36.05
19 years	1	1.90	31 years	6	11.39
20 years	5	9.49	32 years	12	22.77
21 years	107	203.04	33 years	3	5.69
22 years	81	153.70	34 years	5	9.49
23 years	54	102.47	35 years	4	7.59
24 years	61	115.75	36 years	1	1.90
25 years	40	75.90	37 years	2	3.80
26 years	30	56.93	38 years	2	3.80
27 years	31	58.82			
28 years	36	68.31	Total	527	1,000.00
29 years	22	41.75			

The proportion 24 years of age and under who enlisted was 59.58 per cent, 1.91 per cent of which were under 20 years of age when accepted for service, while 21 is the age at which the largest number were accepted.

The next statement shows the relation of height to age of accepted Filipino recruits in both absolute and proportional numbers:

TABLE C.—*Relation of height to age.*

ABSOLUTE NUMBERS.

Height.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years	25 years.	26 years and over.	
4 feet 10 inches and under				2	1				2	5
4 feet 11 inches					1	1		1	2	5
5 feet					8	1	5	2	9	25
5 feet 1 inch			1	17	7	5	4	1	9	44
5 feet 2 inches		1		20	8	7	10	9	28	83
5 feet 3 inches	1		1	14	20	11	17	8	24	96
5 feet 4 inches	1		2	24	13	17	10	8	38	113
5 feet 5 inches	1		1	16	9	8	7	2	32	76
5 feet 6 inches				7	8	2	2	6	10	35
5 feet 7 inches				2	2	2	2	1	13	22
5 feet 8 inches	2			2	4		3	1	6	18
5 feet 9 inches				1			1			2
5 feet 10 inches										
5 feet 11 inches and over				2				1		3
Total	5	1	5	107	81	54	61	40	173	527

PROPORTIONAL NUMBERS.

Height.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years	25 years.	26 years and over.	Total.
4 feet 10 inches and under				18.69	12.35				11.56	9.49
4 feet 11 inches					12.35	18.52		25.00	11.56	9.49
5 feet					98.77	18.52	81.97	50.00	52.02	47.44
5 feet 1 inch			200.00	158.88	86.42	92.59	65.57	25.00	52.02	83.49
5 feet 2 inches		1,000.00		186.92	98.77	129.63	163.93	225.00	161.85	157.50
5 feet 3 inches	200.00		200.00	130.84	246.91	203.70	278.69	200.00	138.73	182.16
5 feet 4 inches	200.00		400.00	224.30	160.49	314.81	163.93	200.00	219.65	214.42
5 feet 5 inches	200.00		200.00	149.53	111.11	148.15	114.75	50.00	184.97	144.21
5 feet 6 inches				65.42	98.77	37.04	32.79	150.00	57.80	66.41
5 feet 7 inches				18.69	24.69	37.04	32.79	25.00	75.14	41.75
5 feet 8 inches	400.00			18.69	49.38		49.18	25.00	34.68	34.16
5 feet 9 inches				9.35			16.39			3.80
5 feet 10 inches										
5 feet 11 inches and over				18.69				25.00		5.69
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

Of the accepted recruits 48.96 per cent were under 5 feet 4 inches, compared with 55.03 per cent for the previous year, and 1.90 per cent were under 5 feet.

The following table shows the weights of Filipino recruits who were finally approved and the proportion of each weight per 1,000; also the relation of weight to age in both absolute and proportional numbers:

TABLE D.—*Relation of weight to age.*

ABSOLUTE NUMBERS.

Weight.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
99 pounds and under			1	4	2		1	1	3	12
100 to 104 pounds	1			7	7	5	1	2	13	36
105 to 109 pounds		1	1	12	11	9	9	6	16	65
110 to 114 pounds			1	16	11	4	7	12	24	75
115 to 119 pounds	1		1	18	13	11	8	2	31	85
120 to 124 pounds	2		1	17	19	8	8	4	27	86
125 to 129 pounds	1			18	11	7	6	9	21	73
130 to 134 pounds				7	2	8	10	2	19	48
135 to 139 pounds				7	3	1	5	1	11	28
140 to 144 pounds					1	1	3	1	5	11
145 to 149 pounds				1			1		2	4
150 to 154 pounds					1					1
155 to 159 pounds							1			1
160 pounds and over							1		1	2
Total	5	1	5	107	81	54	61	40	173	527

PROPORTIONAL NUMBERS.

Weight.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
99 pounds and under			200.00	37.38	24.69		16.39	25.00	17.34	22.77
100 to 104 pounds	200.00			65.42	86.42	92.59	16.39	50.00	75.14	68.31
105 to 109 pounds		1,000.00	200.00	112.15	135.80	166.67	147.54	150.00	92.49	123.34
110 to 114 pounds			200.00	149.53	135.80	74.07	114.75	300.00	138.73	142.31
115 to 119 pounds	200.00		200.00	168.22	160.49	203.70	131.15	50.00	179.19	161.29
120 to 124 pounds	400.00		200.00	158.88	234.57	148.15	131.15	100.00	156.07	163.19
125 to 129 pounds	200.00			168.22	135.80	129.63	98.36	225.00	121.39	138.52
130 to 134 pounds				65.42	24.69	148.15	163.93	50.00	109.83	91.08
135 to 139 pounds				65.42	37.04	18.52	81.97	25.00	63.58	53.13
140 to 144 pounds					12.35	18.52	49.18	25.00	28.90	20.87
145 to 149 pounds				9.35			16.39		11.56	7.59
150 to 154 pounds					12.35					1.90
155 to 159 pounds							16.39			1.90
160 pounds and over							16.39		5.78	3.80
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The weight of 51.80 per cent of accepted recruits was less than 120 pounds, while only 4 reached 150 pounds or over; the average weight, however, was slightly greater than for the previous year.

The chest measurement of accepted Filipino recruits with ratios per 1,000, also the relation of chest measurement to age in both absolute and proportional numbers is shown in the following statement:

Table E.—*Relation of chest measurement to age.*

ABSOLUTE NUMBERS.

Chest measurement.	Age.									Total.
	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	
26 inches and under				1			1		1	3
27 inches									1	1
28 inches	1		2	11	3	2	1	1	5	25
29 inches	1	1		12	13	6	5	3	14	55
30 inches			1	23	16	10	5	4	26	85
31 inches	3		1	27	23	16	20	12	43	145
32 inches			1	18	14	9	13	8	46	109
33 inches				9	9	4	3	9	24	58
34 inches				6	2	3	9	2	6	28
35 inches						1			3	4
36 inches and over					1	3	4	1	4	13
Total	5	1	5	107	81	54	61	40	173	527

PROPORTIONAL NUMBERS.

Chest measurement.	18 years and under.	19 years.	20 years.	21 years.	22 years.	23 years.	24 years.	25 years.	26 years and over.	Total.
26 inches and under				9.35			16.39		5.78	5.69
27 inches									5.78	1.90
28 inches	200.00		400.00	102.80	37.04	37.04	16.39	25.00	28.90	49.34
29 inches	200.00	1,000.00		112.15	160.49	111.11	81.97	75.00	80.92	104.36
30 inches			200.00	214.95	197.53	185.19	81.97	100.00	150.29	161.29
31 inches	600.00		200.00	252.34	283.95	296.30	327.87	300.00	248.55	275.14
32 inches			200.00	168.22	172.84	166.67	213.11	200.00	265.90	206.83
33 inches				84.11	111.11	74.07	49.18	225.00	138.73	110.06
34 inches				56.07	24.69	55.56	147.54	50.00	34.68	53.13
35 inches						18.52			17.34	7.59
36 inches and over					12.35	55.56	65.57	25.00	23.12	24.67
Total	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00

The average chest measurement of accepted applicants shows improvement compared with the previous year; 32.26 per cent of the recruits had a chest measurement under 31 inches compared with 47.86 per cent for last year, while 8.54 per cent had a chest measurement of 34 inches and over compared with 4.72 per cent for the previous year.

In the following statement the causes of rejection among Filipino candidates for enlistment during the year 1906, with ratios per 1,000 rejected are shown:

Defects of development caused 111.11 rejections per 1,000 compared with 315.79 for the previous year. There was but one rejection on account of venereal disease. Heart disease as a cause of rejection was slightly increased compared with the figure for the previous year, as was also defective vision. The other rates for causes of rejection were not materially changed for the year.

TABLE F.

Causes of rejection.	Number rejected.	Ratio per 1,000.
1. Heart disease	10	138.89
2. Defects of vision	9	125.00
3. Varicocele	8	111.11
4. Hernia	5	69.44
5. Diseases of the skin	5	69.44
6. Varicose veins.*	4	55.56
7. Tuberculosis	3	41.67
8. Underweight	3	41.67
9. Flat feet	3	41.67
10. Chest development insufficient	3	41.67
11. Hemorrhoids	2	27.78
12. Defective teeth	2	27.78
13. Venereal diseases	1	13.89
14. General diseases, except as shown in detail	1	13.89
15. Defects of hearing	1	13.89
16. Diseases of the genito-urinary system (nonvenereal)	1	13.89
17. Curvature of spine	1	13.89
18. Diseases of the organs of locomotion, except spinal curvature	1	13.89
19. Overweight and obesity	1	13.89
20. Defects of development, except as shown in detail	1	13.89
21. Causes not physical	7	97.22
Total	72	1,000.00

SANITATION.

DEPARTMENT OF LUZON.

The successive concentrations of troops in this department in the larger garrisons, with the improved condition of quarters, cooking, water supply, and drainage, and the betterment of the quality of supplies, on account of the greater accessibility of posts and better transportation facilities, have all tended to an improvement of service conditions. There was no active field service in this department during the year, but in the months of March, April, and May all of the troops made a number of practice marches under active service conditions.

During these months there was an increase in the sick rate; upon suspension of these marches, however, the sick rate declined.

The malarial situation at Camp Stotsenburg assumed such a serious aspect at times during the year as to occasion doubts concerning the advisability of further continuing this place as a garrisoned post. The conclusions of the board appointed by the division commander to investigate and report upon the prevalence of malarial diseases at this station, with a view to determining the cause and recommending measures for prevention, were as follows:

> That sanitary regulations issued by the post commander of Camp Stotsenburg were adequate and sufficient. That these regulations had been imperfectly carried out in that the bamboo joints in the frames of the new buildings were, in many instances, inefficiently or improperly bored; the prophylactic administration of quinine was not thoroughly carried out; the pool of water under the quartermaster's storehouse was not promptly drained; mosquito nets were not issued to the Second Infantry for some days after they went into camp. The individual responsibility for these shortcomings can not be placed positively. The commanding officer appears to have issued prompt orders for the execution of the surgeon's sanitary recommendations, but there evidently was a marked lack of appreciation on the part of the junior line officers of the necessity for these measures, and the sanitary officers failed to meet with that cooperation which is essential to success in matters of this kind. The board is of the opinion that it is quite possible to virtually eliminate malaria from this station, provided that all sanitary recommendations are strictly and conscientiously carried out; that the garrison is not increased; that all barracks and quar-

ters built of bamboo and nipa are removed as soon as practicable; that the present reservation is increased by extending its limits to the Bamban River on the north, the railroad on the east, the large creek on the south, and to the west to the watershed of all the streams running through the reservation: this extension to be followed by the removal of all native barrios existing within said limits. The board is convinced that the sanitary conditions at Camp Stotsenburg are not of such gravity as to justify the abandonment of the post.

Speaking in a general way, the monthly sanitary reports show the sanitary condition in this department to be very good. All troops in the department are quartered in buildings with the single exception of one company of scouts. The question of quarters is, as a rule, quite satisfactory at the more permanent posts.

The water-carriage system for the disposal of liquid wastes is in successful operation at Fort William McKinley, Cuartel de España, and Camp McGrath. At all other posts the dry-earth system of closets is used. The contents of the dry-earth pans at these posts and the solid and miscellaneous wastes from all posts are collected daily and carried to varying distances from the post and either burned or buried. This manner of disposal is at best but an expedient and is a constant source of pollution to neighboring streams, barrios, and camps. At the coast stations and at some of the posts situated on navigable streams the wastes are disposed of by dumping into the sea or river.

Prior to the receipt of General Orders, No. 106, War Department, 1906, numerous complaints were made by the surgeons concerning the nonissue of toilet paper to those posts not provided with water-closets, it being almost impossible to cover the excreta in the pans when stiff paper, old newspapers, etc., were used, without requiring large quantities of earth.

The water supply in most instances is satisfactory throughout the department. The source of supply and methods of purification at the different posts are as follows: From rivers, Camps Gregg and Wilhelm, Daet, Samal, and San Mateo, of which the waters of the first two stations named are distilled before use, and of the latter three boiled before use. The spring water used at Camps Eldridge and McGrath and Daraga is rendered safe by distillation and at Balayan, Boac, Infanta, and Naic by boiling. Surface wells are in use at Camp Wallace, Atimonan, Calapan, and Imus. Camp Wallace and Imus have distilling plants. At the other two posts the water is boiled before use. The water used at Camp Stotsenburg, Fort Wm. McKinley, Nasugbu, San Isidro, and Santo Tomas is obtained from deep wells. It is distilled at Stotsenburg before use. McKinley's supply is considered sufficiently safe to allow of its consumption without sterilization, while at the other posts the water is boiled before use.

There were a few reports made during the year in which fault was found with the khaki clothes issued, noting that it was too heavy in weight and that it did not hold its color. Otherwise the quality has been satisfactory and supply ample.

DEPARTMENT OF MINDANAO.

The sanitary condition of the department at large is constantly improving. The tents used at the temporary posts have been replaced with grass and bamboo houses. Water is distilled for drinking purposes at the larger posts, while boiling is resorted to at a few stations in the department. There is river, lake, or sea bathing at all the posts, and most of them are provided with shower baths.

The dry-earth treatment of excreta continues in use. The native scavengers have been closely inspected, and there has been less nuisance created than formerly. Slops and garbage are carted away daily and disposed of in a satisfactory manner.

Zamboanga.—Malarial fever is practically never contracted by the American soldier at this station. The sanitary condition of the post is generally good. Water for drinking is distilled. Wastes are hauled away in a sanitary cart and dumped into the sea. This method is satisfactory when properly carried out. The post is an unusually healthy place, and the incidence of sickness of moment is very small.

Jolo.—The sanitary conditions at this post during the year have been very good. Bathing facilities are adequate. The water supply is sufficient in quantity and satisfactory in quality, distilled water being used for drinking purposes. The enlisted men of the command are examined twice a month for venereal disease and are promptly isolated and treated when found to be infected. This examination has been attended with the most gratifying results, and almost all cases of venereal disease treated during the past six months originated elsewhere. The results of anti-mosquito measures have been a decrease in the number of mosquitoes with a corresponding decrease in the number of cases of malarial fevers.

Parang.—The sanitary condition of the post has steadily improved under the consistent and energetic efforts of the post authorities to improve the poor surface drainage. Bathing facilities are limited. For drinking purposes distilled water is used. The food is excellent, but practically limited to the ration, as fresh vegetables and fruits are scarce and costly at this station.

Malabang.—The sanitary condition of the post during the year has been fairly good. The barracks and quarters are quite defective. Efforts have been made by the post authorities to improve the condition, but as yet no appropriation sufficiently adequate for the repairs, etc., has been secured. Bathing facilities are excellent, both salt and fresh water being accessible. The water supply obtained from a spring in the bank of the Malabang River is ample and of excellent quality. For drinking purposes, however, distilled water is provided. Dry earth closets are in use.

Camp Keithley.—Sanitary condition very good. Organization commanders are required to submit a report twice a month showing the progress of the work to prevent mosquito breeding. The intestinal affections at this post are probably caused by field service. The command is inspected for venereal diseases twice a month. The buildings are very poor. The new sets of barracks have wooden floors for the kitchen and dining room. A new bath house with showers has been provided for the men. The water supply is ample and of good quality. The disposal of wastes is unsatisfactory. Dry earth closets are used, but they are not fly-proof by any means, probably on account of lack of funds. The wastes are deposited in a ravine, as it is not advisable to permit the use of the river for this purpose.

Camp Vicars.—The sanitary condition is good. The quarters for officers and enlisted men need constant repair. Bathing facilities consist of extemporized shower baths. The water supply is ample in the wet season, but as it is obtained from a spring it is of questionable quality. All drinking water is boiled and filtered. Mosquito bars are used by the entire command.

Camp Overton.—The sanitary condition has been generally satisfactory during the year. Bathing facilities are good. Distilled water is used for drinking purposes, but general supply is limited. The post seems to be unusually healthful for these islands, due principally, no doubt, to the fact that it is built on the sand and stagnant water is nearly unknown.

Fort Pikit.—The sanitary conditions have been good throughout the year.

DEPARTMENT OF THE VISAYAS.

During the last half of the year the troops in this department have had a great deal of field service, and the sick report shows an increase during this period, which is due partly to the conditions of service and partly to an increased command. Recommendations on sanitary reports have been, as a rule, regarding minor matters of post sanitation, and have been attended to by immediate commanders as far as practicable.

PREVALENCE OF DISEASE, BY RACES.

In making this comparison it is to be borne in mind that the native troops were serving in their own country under conditions natural to them but inimical to our troops, and that American soldiers excused from any portion of their military duty, no matter how trivial the cause, are placed on sick report, while this is not the case with the Philippine scouts.

As was the case last year all the rates, except the death rate, were considerably lower for Filipino than for American troops; the death rate from all causes and from disease only, was, however, much higher among the Filipinos. An undue prevalence of cholera and beriberi partially explains the higher death rate among the Filipinos.

The diseases more prevalent among the American troops, with the admission rates per 1,000 for each, are shown in the following table:

Disease.	American troops.			Filipino troops.
	Total.	White.	Colored.	
Venereal diseases	310.34	309.17	322.27	63.25
Diarrhea, including enteritis	130.69	130.63	131.96	95.40
Dengue	88.77	85.52	149.44	15 55
Dysentery	43.86	41.61	85.86	20.38
Dyspepsia	35.46	33.79	66.77	27.53
Alcoholism	30.37	31.57	7.95	.63
Articular rheumatism, acute and chronic	11.39	11.15	15.90	5.46
Diseases of the liver	6 54	6.73	3.18	1.89
Appendicitis	5.41	5.36	6.36	1.26
Measles	5.01	5.28	....	.63
Typhoid fever	3.88	4.08	....	.84
Heart disease, organic, including endocarditis and pericarditis.	2.26	2.22	3.18	2.10
Insanity	2.02	2.13	....	.63

The diseases more prevalent among the Filipino troops are shown in the next statement.

Disease.	Filipino troops.	American troops.		
		Total.	White.	Colored.
Malarial fevers	393.15	304.20	318.10	44.52
Bronchitis, acute and chronic	67.03	27.30	25.95	52.46
Abscess, acute	44.76	35.95	35.06	52.47
Constipation	44.76	22.54	20.68	57.24
Dhobie itch	43.08	27.54	24.97	76.31
Beriberi	36.98	.08	.09	......
Fevers, undetermined	21.43	8.97	8.68	14.31
Conjunctivitis, acute	16.18	7.92	7.74	11.13
Tuberculosis	9.88	5.49	5.36	7.95
Cholera, Asiatic	2.73	.57	.60	......
Pneumonia	1.68	.48	.51	......

TROOPS ON TRANSPORTS.

During the year 1906, 4,886 enlisted men left the United States on transports for passage to foreign stations and 5,900 returned from foreign stations. The sanitary condition of Government transports is generally satisfactory.

The recommendation of this office that the transportation of sick and wounded on a given transport should be restricted to the known capacity of the hospital wards, and requiring the excess over that number to wait for the next transport, with the probability of more favorable conditions, should be strictly adhered to.

MEDICAL OFFICERS, UNITED STATES ARMY.

The number of commissioned officers of the medical department provided for by existing law is 323—one additional major having been allowed by the act of March 2, 1907; the number in service June 30, 1907, was 302, leaving 21 vacancies at that date.

The following table exhibits the loss of medical officers during the fiscal year:

	Colonels.	Lieutenant colonels.	Majors.	Captains.	First lieutenants.	Total.
Retired from active service	1	......	2	2	......	5
Resigned	......	......	......	3	1	4
Died	......	......	1		......	1
Honorably discharged	......	......	......		1	1
Aggregate	1	......	3	5	2	11

During the year the following promotions were made: One lieutenant-colonel, deputy surgeon-general, to be colonel, assistant surgeon-general; 1 major, surgeon, to be lieutenant-colonel, deputy surgeon-general; 4 captains, assistant surgeons, to be majors, surgeons; 1 first lieutenant, assistant surgeon, to be major, surgeon, under provisions of the act of March 2, 1907, and 31 first lieutenants were advanced to the rank of captain after five years' service, in accordance with existing law. After completion of a full course of instruction at the Army Medical School and passing the qualifying examination, ten applicants were appointed assistant surgeons with the rank of first lieutenant.

Two captains, assistant surgeons, were examined for promotion, one of whom was found not qualified professionally and suspended from promotion for one year, and one was found fully qualified for promotion to surgeon, with the rank of major. Thirty-four first lieutenants, assistant surgeons, were examined for advancement to the rank of captain, of whom 31 were found fully qualified, 1 was found physically disqualified and retired from active service as captain, and 2 were found not professionally qualified and suspended from advancement for one year from the date they would have been entitled to promotion had they been found qualified. One first lieutenant was reexamined for advancement to the rank of captain; he was found not professionally qualified and honorably discharged from service.

Preliminary examinations of applicants for appointment in the medical corps of the army were held at various military posts on July 31, 1906, and April 29, 1907. These examinations are summarized as follows:

Place of examination.	Invited.	Declined to appear.	Failed to appear.	Preliminary requirements not complied with.	Examined.	Physically disqualified.	Withdrew.	Rejected.	Qualified.
Examination held July 31, 1906.									
Washington, D. C. (Army General Hospital)	12		1		11	5		6	
Fort Sheridan, Ill	7		2		5	3		1	1
Fort Jay, N. Y	5		2		3	1		2	
Fort Thomas, Ky	4		3		1	1			
Fort Snelling, Minn	4	1	1		2			1	1
Fort Niagara, N. Y	4	1	1		2	1		1	
Fort Leavenworth, Kans	4		1		3	1	2		
Jefferson Barracks, Mo	3				3		1	2	
Fort Adams, R. I	3				3			2	1
Vancouver Barracks, Wash	3		1		2		1	1	
Columbus Barracks, Ohio	2		1		1			1	
Fort Des Moines, Iowa	2				2	1	1		
Hot Springs, Ark	2				2			1	1
Madison Barracks, N. Y	2		1		1				1
Austin, Tex	2				2	2			
Fort Oglethorpe, Ga	1				1			1	
Fort Bayard, N. Mex	1				1			1	
Fort Worden, Wash	1				1				1
Ancon, Canal Zone	1				1			1	
Total	63	2	14		47	15	5	21	6
Examination held Apr. 29, 1907.									
Washington, D. C. (Army General Hospital)	4				4	3			1
Fort Sheridan, Ill	4		2		2	1	1		
Fort Leavenworth, Kans	4		2		2	1			1
Jefferson Barracks, Mo	3		1		2	1			1
Fort Riley, Kans	2		1		1			1	
Fort Porter, N. Y	2			1	1			1	
Vancouver Barracks, Wash	2				2		1		1
Fort Ethan Allen, Vt	1				1			1	
Fort Rosecrans, Cal	1				1			1	
Madison Barracks, N. Y	1		1						
Fort Snelling, Minn	1				1	1			
Fort Thomas, Ky	1				1	1			
Fort Reno, Okla	1	1							
Columbus Barracks, Ohio	1				1				1
Fort Monroe, Va	1				1	1			
Fort D. A. Russell, Wyo	1				1				1
Fort Logan, Colo	1	1							
Ancon, Canal Zone	1				1				1
Fort Jay, N. Y	1				1			1	
Philippines	1				1			1	
Total	34	2	7	1	24	9	2	6	7

Of the 6 successful applicants in the examination held July 31, 1906, 4 were ordered to the Army Medical School October 1, 1906, and after a full course of instruction were graduated May 31, 1907; 1 attended the school as a militia officer, and was graduated in 1905; 1 declined to accept contract for service at the school. The qualified applicants in the examination of April 29, 1907, will be ordered to he school at the commencement of the next session.

The bill to increase the efficiency of the medical department of the army, after passage by the Senate, again failed to come to a vote in the House of Representatives, although its passage has been urged by the President of the United States in his special message to Congress, by Secretaries Root and Taft, by the Chief of Staff, by the General Staff, and by this office.

The vacancies in the lower grades created by the reorganization bill of 1901 have not been filled; in fact, the number is now greater by three (including one pending and effective July 3, 1907) than at the time of the last report.

The number of applicants for admission to the medical corps has steadily fallen off and at the examination held in April, 1907, only 24 appeared for examination. No applications were received from the medical centers of the country although the hospitals in any one of the larger cities could furnish a sufficient number of well-qualified young physicians to supply our needs if proper inducements could be offered. The lack of a sufficient number of medical officers has become very apparent since troops were sent to Cuba and there are now not enough medical officers left in the country to supply the positions that can not be filled except by commissioned medical officers (recruiting service, larger military posts, examining and retiring boards). The necessity for a sufficient number of officers trained in military sanitation is recognized by all who have the welfare and efficiency of the army at heart. That the value of such training is appreciated is shown by the detail of medical officers of the army to take charge of the sanitation of Cuba and the Panama Canal Zone.

The Government has been put to considerable expense in transferring patients to general hospitals and to larger posts where experienced medical officers are stationed, because many of the contract surgeons employed at the smaller stations were not sufficiently experienced to undertake the treatment of serious and complicated cases.

In the leading foreign armies the proportion of medical officers is 50 per cent greater than in ours, although they have a large reserve corps of trained medical officers to draw upon in case of war or other emergencies. This office is constantly embarrassed by demands for medical officers that can not be supplied, and little can be done in the way of preparation for great emergencies with a personnel that is not sufficient to meet the little emergencies that occur in time of peace.

In consequence of this inadequate supply of medical officers, it is necessary to employ a large number of civilian physicians, under contract, men without military training, with but little knowledge of the special sanitary duties of medical officers in the field, and whose professional efficiency is below that demanded of the commissioned medical officer.

The defects in the organization of the medical department, as indicated above, can only be remedied by legislation.

CONTRACT SURGEONS, UNITED STATES ARMY.

There were 166 contract surgeons in service at the close of the fiscal year ended June 30, 1906. During the past fiscal year contracts were made with 67 physicians, while 55 contracts were annulled, and

1 was terminated by death, leaving 177 in service June 30, 1907. Of the 67 contracts made, 3 were merely renewals for definite terms of contracts already in force; 10 were with candidates for commission as medical officers, who were given the status of contract surgeons while pursuing a course of study at the Army Medical School; and 17 were with those who had previously served satisfactorily as contract surgeons or volunteer medical officers.

Contract Surgeon James E. Shellenberger, U. S. Army, died February 4, 1907, at Cincinnati, Ohio, of heart disease, in the sixty-first year of his age.

CONTRACT DENTAL SURGEONS, UNITED STATES ARMY.

Thirty dental surgeons are allowed by the act of Congress approved February 2, 1901, and this number has been continuously employed under contract during the fiscal year ended June 30, 1907. Two contracts were annulled, and the vacancies thus created were immediately filled from the register of eligible candidates. Thirteen dental surgeons are serving in the Philippine Islands, 2 in Cuba, and 15 in the United States.

The following statistics show the valuable work performed by the dental surgeons during the year. In the Philippine Islands 875.09 cases per 1,000 of mean strength were admitted for dental treatment and 895.51 operations per 1,000 were performed on the teeth, compared with 570.26 and 585.80, the corresponding figures for the United States proper.

The number of teeth treated for dental caries in white troops serving in the United States was 368.51 per 1,000 men, compared with 193.07 for the negro troops, both figures showing an improvement over 1905 in the number of teeth involved. In the Philippine Islands the number of teeth treated in white troops was 773.13, in colored troops 1,015.90, and in the native scouts 31.52 per 1,000.

Dental and oral diseases.

	United States (continental) exclusive of Alaska.		Philippine Islands.		Alaska.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
Cases admitted to treatment	24,472	570.26	15,770	875.09	304	358.07
Operations performed	25,139	585.80	16,138	895.51	283	333.33

	Cuba.		Hawaii.		Total.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
Cases admitted to treatment	154	129.09	447	1,817.07	41,147	650.82
Operations performed	126	105.62	534	2,170.73	42,220	667.79

Dental caries—Number of teeth treated.

	United States (continental) exclusive of Alaska.		Philippine Islands.		Alaska.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
White troops	14,900	368.51	9,767	773.13	206	242.64
Colored troops	490	193.07	639	1,015.90		
Filipino troops			150	31.52		
Total	15,390	358.62	10,556	585.76	206	242.64

	Cuba.		Hawaii.		Total.	
	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.	Number.	Ratios per 1,000 of mean strength.
White troops	82	68.73	345	1,402.44	25,300	457.06
Colored troops					1,129	363.02
Filipino troops					150	31.52
Total	82	68.73	345	1,402.44	26,579	420.40

PRESENTATION OF MEDAL OF HONOR.

Under the Executive order of September 20, 1905, Maj. Paul F. Straub, surgeon, U. S. Army, was presented with a medal of honor by the President of the United States, October 6, 1906. The presentation took place in the President's private office, and on account of the notable character of Major Straub's services, was made a brilliant ceremony. Those present included the Secretary of War, the Assistant Secretary of War, the Chief of Staff, the Surgeons-General of the Army and Navy, and officers of the medical department and general staff.

The Chief of Staff formally presented Major Straub to the President, detailing the conspicuous gallantry and the specific acts entitling the recipient to the distinguished honor about to be conferred.

Upon presenting the medal to Major Straub the President said:

> I give you the reward which more than any other in American life should be coveted by every man in the country. It is the nearest thing to a patent of nobility that this nation has in its power to bestow. Every man who has worthily won it has rendered distinguished services, and is entitled to the regard of all our people. I congratulate you on having worthily won this medal of honor.

ARMY MEDICAL SCHOOL.

The eleventh session began October 1, 1906, and closed May 31, 1907.

The number of student candidates admitted was 10, and of militia medical officers 1. One student medical officer also attended.

The 10 student candidates completed the course; 9 passed the graduating examination and were awarded certificates of proficiency. The militia medical officer failed to graduate.

The table following shows the subjects taught, the hours of instruction in each subject, and the names of the instructors.

No.	No. of hours.	Subject.	Instructor.	Valuation.	
				Maximum.	Minimum.
1	104	Duties of medical officers, medical department administration, and customs of the service.	Maj. W. H. Arthur and Capt. B. K. Ashford.	1,000	800
2	280	Clinical microscopy and bacteriology	Maj. J. Carroll and Capt. F. F. Russell.	900	720
3	20	Military hygiene	Col. V. Havard	800	640
4	22	Military surgery	Maj. W. C. Borden	800	640
5	30	Military and tropical medicine	Maj. W. D. McCaw	800	640
6	170	Sanitary chemistry	Capt. C. R. Darnall	600	480
7	93	Hospital corps drill and field work	Capt. B. K. Ashford	500	400
8	48	Operative surgery	Capt. C. R. Darnall	400	320
9	68	Ophthalmology and optometry	Maj. J. D. Glennan	400	320
10	30	Roentgen ray work	Maj. W. C. Borden	300	240

The following additional instruction was also given:

Twenty-two hours in equitation at Fort Myer, by Capt. E. B. Cassatt.

A series of surgical clinics at the U. S. Army General Hospital, Washington Barracks, by Maj. W. C. Borden.

A series of six lectures on military law, by Maj. John B. Porter, Judge-Advocate-General's Department.

A series of lectures on mental diseases at the U. S. Government Hospital for the Insane, by Doctor Myer.

A series of lectures on animal parasites by Dr. Chas. W. Stiles, of the Public Health and Marine-Hospital Service.

A series of lectures and demonstrations on mosquitoes by Miss Clara Ludlow.

The conduct and deportment of the students, as well as their attention to duty and application, were at all times excellent, without exception.

The graduating examination began on May 13, and the closing exercises, including the award of diplomas by the Assistant Secretary of War, were held May 31.

One student candidate, Dr. Frederick S. Macy, graduated with honor, having attained a general average of more than 90 per cent, and to him the Hoff Memorial medal was awarded.

The qualifying examination for commission in the medical department began June 3, and closed June 12. The candidates consisted of the nine graduates of the school and one contract surgeon who had previously graduated. These were all found qualified, physically and mentally, and recommended for commission as assistant surgeons.

It is regretted that the number of students in this school has gradually decreased of late years, being smallest during the last session since 1900. The reasons for this decrease need not be discussed in this report. Obviously, the army medical service has lost much of its attraction for the bright young graduates from our best medical schools, and unless a remedy is soon supplied, by suitable legislation, it will be impossible to fill vacancies in the medical corps without lowering the present standard of examination, a resort which, if adopted, would leave us distinctly outclassed by the medical corps of the armies of all other civilized countries.

The faculty, after careful study of the subject, has recommended certain changes in the existing regulations governing the preliminary and final examinations. These recommendations are now under consideration by the general staff, and if accepted will, it is believed, remove some of the minor causes which may have deterred desirable young physicians and militia medical officers from applying for admission.

Steps are also being taken for the installation, in one of the rooms of the school building of the museum, of field medical equipment already approved by this office. Much useful and interesting material now inaccessible will thus be exhibited and classified and greatly contribute to the practical instruction of the students and medical officers.

HOSPITAL CORPS.

At date of last report, June 30, 1906, the strength of the hospital corps was as follows:

Sergeants, first class	290
Sergeants	267
Corporals	18
Privates, first class	1,467
Privates	1,154

Since then it has gained—

By enlistment	746
By transfer	875
Return from desertion	39

And lost during the same period—

By discharge by expiration of term of service	983
By discharge by order	182
By discharge, sentence general court-martial	54
By discharge, surgeon's certificate of disability	71
By transfer to line	22
By retirement	9
By death due to disease	8
By death due to suicide	3
By death due to drowning	2
By death due to wounds (accidental)	1
By desertion	202

Leaving in service, June 30, 1907—

Sergeants, first class	266
Sergeants	289
Corporals	20
Privates, first class	1,468
Privates	1,276

Total number of losses during the year ,1,537; gain, 1,660.

In March, 1907, 27 vacancies existed in the grade of sergeant, first class. All chief surgeons were consequently informed that a competitive examination for promotion to that grade would be held from June 10 to 15, 1907, and that questions for that purpose would be forwarded from this office in due time.

Applications from 64 sergeants serving at posts in the United States were received at this office, of whom 1 failed to meet the requirements for admission, 1 withdrew his application, and the recommendations for admission to the class in the case of 3 applicants were withdrawn by their superior officers on account of the reduction of the men from the grade of sergeant. The result of this examination will not be known until the replies from the Philippines Division are received.

Examinations for the position of sergeant are held under the immediate supervision of chief surgeons of the several military departments, unless candidates are serving at independent stations, when they are authorized by this office. About 103 appointments to this grade were made during the fiscal year ending June 30, 1907.

For various reasons it has always been held desirable to recruit the hospital corps by enlistments from civil life, but it has been found that this service is not entirely adequate to fill all the vacancies which frequently occur and to provide for emergency calls, especially in view of the existing advantageous labor conditions.

In view of these facts the gain by transfer from the line and from unassigned recruits still exceeds the enlistments direct for the corps by a trifle over 125, or by about 1¾ per cent.

For the good of the service and with a view to economy in transportation, the Acting Secretary of War, on March 27, 1907, upon request of the commanding general, Philippines Division, authorized that officer to transfer to the hospital corps from the line of the army of the regiments about to be returned to this country as many men as would provide for all vacancies that might occur in that division during the next six months.

Companies A and B being on duty in Cuba, and the urgent necessity for facilities to instruct hospital corps recruits and prepare them for service being evident, the Acting Secretary of War, on October 4, 1906, authorized the organization of Company C, Hospital Corps. The company moved into the barracks vacated by Company A, and the course of instruction has been carried on since its organization in conformity with the requirements of the Manual for the Medical Department.

Upon the recommendation of the chief surgeon, Philippines Division, and under authority from the War Department, Company D. Hospital Corps, was established at Fort William McKinley, Philippine Islands, in May of this year.

The following-named enlisted men of the hospital corps were mentioned in General Orders, No. 143, War Department, July 1, 1907, publishing a list of names of soldiers to whom certificates of merit had been awarded between July 1, 1905, and June 30, 1907, with the grounds of award:

Name, rank, and organization.	Date of award.	Date and place of occurrence.	Ground of award.
David, Leopold, sergeant, first class, Hospital Corps, U. S. Army (discharged Sept. 9, 1905).	Aug. 11, 1905	Journey from Circle City to Fort Yukon, Alaska, Mar. 4, 1905.	Distinguished service in voluntarily continuing his journey to relieve reported suffering and sickness among the natives of Fort Yukon, Alaska, after his only assistant had been left behind disabled, and in spite of severe suffering from frost, involving the loss of several of his toes. (1015255, M. S. O.)
Dougheney, James J., private, Hospital Corps (discharged Mar. 22, 1907).	Sept. 15, 1906	Bulusan, Luzon, P. I., Nov. 11, 1900.	Distinguished gallantry in action while a private, Company L, Forty-seventh U. S. Infantry Volunteers. (1162054, M. S. O.)
Gunn, James C., sergeant, first class, Hospital Corps. U. S. Army (discharged Dec. 6, 1906).	Mar. 10, 1906	Peruke-Utig, Jolo, P. I., May 3, 1905.	Distinguished service in action. (1071056, M. S. O.)
Paschal, Jesse J., private, Hospital Corps, U. S. Army.	Sept. 18, 1906	Fort Screven, Ga., July 4, 1906.	Voluntarily imperiled his own life in the rescue of fellow-soldiers, while a private, Fourteenth Company Coast Artillery Corps, U. S. Army. (1154727, M. S. O.)
Ryan, Frank T., private, Hospital Corps, U. S. Army.	Nov. 5, 1906	Fort Screven, Ga., July 4, 1906.	Voluntarily imperiled his own life in the rescue of fellow-soldiers. (1154698, M. S. O.)

COMPANY "A."

In compliance with telegraphic instructions from the War Department this company, consisting of 2 medical officers and 106 enlisted men, left Washington Barracks October 2, 1906, en route to Newport News, Va., to board transport to Cuba. The company supplied the necessary personnel of Field Hospital No. 2 of the Cuban Expeditionary Brigade and is now on duty at the base hospital, Army of Cuban Pacification, Camp Columbia, Cuba.

COMPANY "B."

The regular work of the company as prescribed by regulations was greatly interrupted during the year by the earthquake at San Francisco, the maneuvers at American Lake, and the expedition to Cuba—in all of which the company participated. While these events interfered with the regular course of instruction they served to make the year the most active as well as the most instructive and beneficial in the history of the company.

COMPANY "C."

Upon the departure of Company A for Cuba the organization of Company C, Hospital Corps, having been authorized by the Acting Secretary of War October 4, 1906, Capt. Bailey K. Ashford, medical corps, was assigned to command the company. The company moved into the barracks vacated by Company A, and the course of instruction has been carried on since its organization so far as possible in conformity with the requirements of the Manual for the Medical Department.

ARMY NURSE CORPS (FEMALE).

At the beginning of the fiscal year there were 99 nurses in the corps, distributed as follows:

General hospital, Presidio of San Francisco, Cal	38
Detailed to duty on the transport Crook	2
General hospital, Fort Bayard, N. Mex	19
Division hospital, Manila, P. I	24
Zamboanga, Mindanao	5
Camp Keithley, Mindanao	5
Fort William McKinley, Rizal	4
Camp Bumpus, Leyte	2

During the past year there were 41 discharges. From among 368 applicants, 42 were selected for appointment; 36 of these were new to the work; 6 had had previous service. There has been no death among the nurses on active duty since 1900, and cases of serious illness have been rare.

In considering the ever-present difficulty of securing the class of women which the highest efficiency of this service demands, the rapidly increasing number and variety of positions open to nurses in civil life can not be ignored. The best graduates from the best nursing schools are eagerly sought, and the army can not hope to get its share of these unless it can offer at least that which is allowed in practically all civil positions—i. e., all necessary living expenses, without cost to the nurses. Under existing provisions for the army nurse corps quarters are provided, but the 30 cents per diem allowed for subsistence is wholly insufficient in localities where food is expensive or where but a few nurses are on duty.

There are at present 2 members of this corps who will in a few days enter upon the tenth year of an uninterrupted service. There are 16 more who have served continuously from four and one-half to eight and one-half years; 11 others who, having been once discharged and reappointed, have served from five to eight and three-fourth years. Under existing regulations the pay of nurses remains the same, whatever may have been their years of service.

It is recommended that—

1. The per diem allowance of 30 cents be increased to 50 cents.
2. In order to reward long and faithful service the pay of nurses be increased 10 per cent for each five years' service, the maximum to be attained after ten years' service.
3. Cumulative leave for a period not to exceed three months be granted them.
4. Provision be made for nurses' laundry work, either in the hospitals or by contract with outside parties.

UNITED STATES ARMY GENERAL HOSPITAL, PRESIDIO OF SAN FRANCISCO, CAL.

The buildings are in a condition of bad repair and wreckage as a result of the San Francisco earthquake. Repairs are being made. Two additional buildings, one for a recreation and exchange building and the other to enlarge the power plant, have been authorized and will be constructed during the coming year.

The number of cases treated in this hospital during the year shows an increase of 766 over the preceding year. There were 222 soldiers discharged for disability, 42 transferred to the Government Hospital for the Insane, and 20 died from all causes. Of the total number of admissions only 484 were from the Philippine Islands, a decrease of 69 admissions compared with the number treated in this hospital from the same source last year. Of the 20 deaths among the soldiers 7 were due to tuberculosis. Most of the 56 deaths among civilians in this hospital resulted from the earthquake. The following is a numerical statement of the movement of sick during the calendar year 1906:

	From the Philippine Islands.	From the United States.	Total.
Remaining in hospital Dec. 31, 1905	108	195	303
Total admissions during 1906	484	2,066	2,550
For gunshot wounds	15	16	31
For diarrhea and dysentery	86	66	152
For malarial fevers	12	20	32
For typhoid fever	4	40	44
For rheumatic affections	15	47	62
For venereal diseases	25	158	183
For injuries	31	416	447
For insanity	35	36	71
For alcoholism	2	58	60
For all other causes	259	1,209	1,468
Total returned to duty	175	1,107	1,282
Total discharged for disability	123	99	222
Total discharged per expiration	26	26	52
Total deaths from all causes	10	66	76
Desertions	8	9	17
Transferred to Hot Springs, Ark	12	15	27
Transferred to Fort Bayard, N. Mex	57	9	66
Transferred to Government Hospital for the Insane	27	18	45
Otherwise disposed of	72	800	872
Remaining in hospital Dec. 31, 1906	82	112	194

NOTE.—Civilians are included in the statistical statement.

UNITED STATES ARMY GENERAL HOSPITAL, FORT BAYARD, N. MEX.

The only important addition to the hospital in 1906 was a building for the post exchange. Considerable progress was made in the construction of permanent macadamized roads within the post.

The number of cases under treatment December 31, 1905, was 346; on December 31, 1906, 295. The total number of cases treated during the year, exclusive of minor ailments, was 736. This number includes 3 cases under observation in which the presence of tuberculosis could not be demonstrated, 3 cases of tuberculosis of the bones, 1 case of tuberculosis of the kidney, 1 case of gland tuberculosis, and 6 cases of nontuberculous disease. The remaining 722 cases were cases of pulmonary tuberculosis. The following table shows the results obtained in the treatment of all cases of pulmonary tuberculosis in 1906. The classification is that of Turban, as modified by the National Association for the Study and Prevention of Tuberculosis.

Class.	Number of cases.	Apparently cured.		Arrested.		Improved.		Unimproved.		Died.	
		No.	Per ct.	No.	Per ct.	No.	Per ct.	No.	Per ct.	No.	Per ct.
Class No. 1	31	9	29.03	14	45.16	3	9.67	5	16.12	0	....
Class No. 2	354	25	7.06	146	41.24	91	25.70	89	25.14	3	0.84
Class No. 3	334	0	....	39	11.67	97	29.04	135	40.41	63	18.86
Class No. 4	3	0	....	0	....	0	....	1	33.33	2	66.66
Total	722	34	4.70	199	27.56	191	26.45	230	31.86	68	9.41

The table includes 11 readmitted cases class No. 2 and 2 readmitted cases class No. 1 in which the disease was found to be arrested upon readmission. It also includes 5 cases which remained less than one month and 13 cases of class No. 2 and 17 cases of class No. 3 which were admitted in December, 1906, all of which are classified as unimproved.

In order to illustrate more clearly the advantages of sanatorium treatment, it is desired to exclude cases in which the duration of treatment is unduly brief and those which are practically moribund on admission. The subjoined table has been prepared to show results obtained in cases of pulmonary tuberculosis which have been under treatment for at least six months. It includes all such cases with the exception of 8 readmitted cases in which the disease was found to be arrested on readmission.

Class.	Number of cases.	Apparently cured.		Arrested.		Improved.		Unimproved.		Died.	
		No.	Per ct.	No.	Per ct.	No.	Per ct.	No.	Per ct.	No.	Per ct.
Class No. 1	22	8	36.36	9	40.90	2	9.09	3	13.63	0	....
Class No. 2	256	26	10.16	120	46.87	43	16.79	65	25.39	2	0.78
Class No. 3	209	0	....	35	16.74	64	30.62	86	41.14	24	11.48
Total	487	34	6.98	164	33.66	109	22.38	154	31.62	26	5.33

Seventy-four deaths occurred in 1906. Of these, 5 resulted from nontuberculous diseases, viz: One each from typhoid fever (imported case), appendicitis, aortic aneurism, disease of aortic valves, and liver abscess. One patient died of Potts' disease and tuberculosis of the spinal meninges. The remaining 68 deaths were due to pulmonary tuberculosis with or without tuberculosis of other organs. Of these, 49 deaths occurred within the first six months of treatment, as shown in the following table:

	Weeks—				Months—		Years—			Total.
	1.	2.	3.	4.	2 to 6.	7 to 12.	2.	3.	4.	
Time of death of 59 cases under continuous treatment	4	3	4	10	24	11	3	....	....	59
Time of death of 9 cases not under continuous treatment:										
(*a*) Reckoned from last admission	1	....	....	1	2	3	2	....	....	9
(*b*) Reckoned from original admission	....	....	....	....	....	....	4	2	3	(9)
Total	....	....	....	....	....	....	....	....	....	68

ARMY AND NAVY GENERAL HOSPITAL, HOT SPRINGS, ARK.

During the last calendar year 641 patients were treated in this hospital, of which 26 were officers of the army, 3 were officers of the navy, and 1 of the marine corps. The admissions were classified as follows:

Rheumatism:	
Chronic, articular	135
Subacute, articular	29
Acute, articular	17
Chronic, muscular	80
Subacute, muscular	8
Malarial fever, cachexia	10
Nephritis	20
Arthritis, rheumatic and gouty	14
Lumbago	5
Stomach trouble	25
Sciatica	17
Neuritis	11
Neurasthenia	5
Other diseases	265

Of the total number of patients treated, 419 were returned to duty or returned to their homes, 43 were discharged for disability, 6 died, 92 were otherwise disposed of, and 81 remained under treatment at the end of the year.

UNITED STATES ARMY GENERAL HOSPITAL, WASHINGTON BARRACKS, D. C.

All the buildings are in poor repair and inadequate in every respect for their purposes, constant repairs being necessary to heating and plumbing systems to keep the buildings habitable. It will be necessary to keep this hospital in fair repair and fit for occupancy until the new Walter Reed Army General Hospital, now under construction, is completed.

As heretofore this hospital has served as the post hospital for Washington Barracks. A larger number of officers were under observation and treatment in 1906 than during any previous year since the organization of the hospital. Fifty-eight officers were admitted for treatment during the year, of whom 15 were remaining at the end of the year. The close observation over prolonged periods, which is possible only at a general hospital of this character, is of the greatest advantage both to the individual and to the service at large. Many of these cases would formerly have been on extended sick leave or subjects for action by army retiring boards. The results of daily observation under hospital control make it possible to express an authoritative opinion concerning the disability for which the officer is under treatment when asked for by higher authority.

During the last year 395 cases were admitted to this hospital, divided as follows: Medical 222, surgical 148, venereal 25. These, with the 48 cases remaining on sick report at the beginning of the year, make a total of 443 cases of all classes treated. Nine deaths occurred during the year.

Sixty-one major and 43 minor operations constitute the surgical work performed during the year, 98 of which operations were reported as successful and 2 partially so.

PROVIDENCE HOSPITAL.

The act approved June 30, 1906, having appropriated $19,000 for the support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with Providence Hospital by the Surgeon-General of the Army, the relief afforded was as follows:

Patients in hospital July 1, 1906	96
Admitted during the year	1,007
Total	1,103
Average number admitted per month	92
Number remaining in hospital June 30, 1907	95
Total number of days' treatment afforded	34,767
Average number of days' treatment per patient	32
Average number of patients treated per day	95
Longest term of treatment (days)	365
Shortest term of treatment (days)	1
Number of patients in hospital during the whole year	5

HOSPITAL CONSTRUCTION AND REPAIR.

During the last fiscal year plans and specifications were prepared for new modern hospitals to be erected at Columbus Barracks, Ohio, Fort D. A. Russell, Wyo., and Jefferson Barracks, Mo., and for additions required for the hospitals at Fort Leavenworth, Kans., and Fort Sheridan, Ill. Plans and specifications were also prepared for improvements needed for the hospital at Fort Wingate, N. Mex., and a large number of sketch and other plans were prepared for use in connection with the Walter Reed United States Army General Hospital.

Contracts were entered into for the erection of the new hospitals at Columbus Barracks, Ohio, Fort D. A. Russell, Wyo., and Jefferson Barracks, Mo.; also for additions to the hospitals at Fort Sheridan, Ill., Fort William Henry Harrison, Mont., and Fort Wright, Wash.

New hospitals were completed at Fort Omaha, Nebr., Fort Sam Houston, Tex., Fort Totten, N. Y., Fort Warren, Mass., and Fort Wood, N. Y. The isolation hospital authorized for use in connection with the hospital at Fort Myer, Va., was also completed, likewise additions to the hospitals at Fort Ethan Allen, Vt., Plattsburg Barracks, N. Y., Fort Revere, Mass., Fort Rodman, Mass., Fort William Henry Harrison, Mont., and Fort Wright, Wash.

The hospital at the Presidio of Monterey, Cal., was badly damaged by fire, and funds were provided to rebuild it. The hospital at

Fort Morgan, Ala., was almost destroyed by storm, and funds were supplied to repair the damage. A ward building at Fort Screven, Ga., was moved, repaired, and connected with the new hospital lately completed at that post, thus increasing the capacity of the hospital to 26 beds. The deadhouse used in connection with the hospital at this post was also moved, repaired, and placed in proper sanitary condition. The hospitals at Fort Monroe, Va., Fort Myer, Va., and Fort Riley, Kans., were improved, and all hospitals at military posts established and occupied have been kept in repair and modernized so far as funds would permit.

Plans and specifications for base and stationary hospitals were prepared for use in case of necessity, and were published in book form. This book contains 149 pages of printed matter, exclusive of the plates, and is so arranged that any single building or any number of buildings can be selected for construction and withdrawn from the publication without injury to the balance.

Funds were also provided to enlarge and improve the hospital accommodations in the Philippine Islands, to enlarge and improve the United States Army General Hospital at Fort Bayard, N. Mex., to repair and improve the general hospital at the Presidio, San Francisco, Cal., and for necessary repairs at the Army and Navy General Hospital, Hot Springs, Ark.; also for such repairs as were absolutely needed for the general hospital at Washington Barracks, D. C.

New quarters for hospital corps sergeants were authorized for Fort Egbert, Alaska, the Presidio of Monterey, Cal., and Vancouver Barracks, Wash. The quarters at Fort Egbert, Alaska, and Vancouver Barracks, Wash., have been completed, and the set at the Presidio of Monterey is under construction. The sergeants' quarters at Fort Screven, Ga., were moved to a convenient distance from the new hospital, repaired, improved, and placed in good condition. In addition to the above, the quarters at various posts have been repaired and improved so far as funds would permit. Owing to the increased cost of material and labor and the excessive cost of construction at various posts, it was not possible to meet all requirements from the limited amount appropriated for the purpose, and even with the increased appropriation for the coming fiscal year it will not be possible to meet the demands for new quarters at various posts where such buildings are absolutely necessary.

MEDICAL AND HOSPITAL SUPPLIES.

Since the year 1901 the demands on the medical and hospital appropriation for the Philippines have been small, owing to the large quantity of supplies sent to that division during the early days of occupation when the command there aggregated 70,000 men. This surplus has now been exhausted and during the past fiscal year supplies to the amount of $152,166.67 have been shipped to the supply depot, Manila.

Upon rumors of trouble in Cuba this office took immediate steps to furnish the necessary medical supplies for the army of occupation. Each regiment going to the island took its regimental field hospital, and two complete field hospitals and ambulance companies were organized to accompany the first brigade. In addition a 200-bed base hospital was assembled in the New York depot ready for immediate shipment provided a larger army was dispatched to the island. A supply depot was established in Havana and is still maintained there.

The wisdom of the policy of assembling field equipment for use in emergency, which was inaugurated by this department some years ago, was amply justified by this experience and enabled the medical department to furnish supplies for the force in Cuba without friction or interference with routine work.

The space assigned for a field medical supply depot at 1229 Twentieth street, this city, has proved inadequate. Proper representations on this subject were made to the War Department and has resulted in the lease of the Globe Building on Pennsylvania avenue for a field medical supply depot. This building will give ample space for the storage of any field supplies that may be assembled for some time to come. The building is now being repaired and strengthened and will be ready for occupancy in a few weeks.

On account of the great demands made upon the medical and hospital appropriation for the occupation of Cuba and for supplies for the Philippines, the appropriation for the fiscal year ending June 30, 1907, has proved entirely inadequate. The entire appropriation was consumed by April 1, and some expenditures had been made from the funds deposited to our credit for replacing military supplies. For this reason it was necessary to cancel the spring purchase and readvertise for supplies for which contracts were signed July 1. It was also necessary to limit all issues to military posts to supplies actually on hand in the medical supply depots. This lack of funds has seriously handicapped the department in its administration and has made it absolutely impossible to continue the assembling of field equipment. The medical department will begin the fiscal year 1908 with less field equipment than it had a year previous and with the regular stock in all supply depots in the United States at a lower figure than it has been for years. Estimates will be made for a larger appropriation for the fiscal year ending June 30, 1909, and the advisability of asking for a special appropriation from the coming Congress for field supplies will be brought to your attention. The collection of such field equipment as can not be readily purchased in the market is considered to be one of the most important duties of the medical department.

The stores of the medical department have continued, during the fiscal year just closed, to be drawn upon to a large extent for the equipment of the militia and the supply of other branches of the Government. The following tables exhibit approximately all of these transactions, as well as sales of serviceable stores authorized by law and regulations so far as reported up to June 30. The amounts indicated represent for the most part the first cost only of the stores mentioned. A number of the accounts had not yet been settled on June 30, and the figures here shown will be found therefore to exceed those set forth in the financial statement with which this report begins. In accordance with the law of June 12, 1906, these amounts accrue to a special fund, designated "Replacing medical supplies" on the books of the Treasury Department, and are available for purchases made during the fiscal years 1907 and 1908 to replace the supplies so disposed of.

A. Supplies issued to States and Territories for use of the organized militia, under section 1661, Revised Statutes, and appropriations supplementary thereto:		
Arizona	$218.14	
Arkansas	48.00	
California	3,351.01	
Connecticut	24.00	
Florida	24.00	
Georgia	3,701.60	
Illinois	3,085.24	
Indiana	600.00	
Kentucky	336.00	
Maryland	454.65	
Massachusetts	439.98	
Maine	268.22	
Michigan	110.96	
Montana	324.54	
Nebraska	164.53	
New Hampshire	97.28	
New Jersey	652.07	
New Mexico	12.00	
New York	5,931.56	
North Carolina	48.00	
Ohio	1.544.48	
Oklahoma	242.60	
Rhode Island	300.00	
South Carolina	3,218.82	
South Dakota	193.44	
Washington	24.00	
		$25,415.12
B. Sales to States under section 17, act of Jan. 21, 1903 (32 Stats., 778):		
Missouri	$147.81	
Pennsylvania	167.12	
Rhode Island	42.45	
		357.38
C. Supplies transferred to other Bureaus and Departments of the Government:		
Bureau of Immigration	$1,961.83	
Bureau of Forestry	85.00	
Bureau of Education	6.50	
Navy and Marine Corps	2,071.08	
Quartermaster's Department, U. S. Army	31.82	
Engineer Department, U. S. Army	49.92	
Isthmian Canal Commission	26,838.17	
Post exchanges	35.00	
		31,079.32
D. Supplies issued for relief of sufferers from earthquake and conflagration on the Pacific coast		200.10
E. Sales to the civil government of the Philippine Islands		176.83
F. Sales to civilian employees and civilians with the army		1,731.11
Total		58,959.86

ARMY MEDICAL MUSEUM.

The total number of specimens in the Army Medical Museum at the end of fiscal year June 30, 1907, was 34,209. The following statement shows in detail the additions and changes in the different sections:

Pathological section:		
In museum June 30, 1906		12,810
Discarded	2	
Donated to McGill University, Montreal, Canada (duplicates)	541	
		543
		12,267
Received during the year		372
In museum June 30, 1907		12,639

Anatomical section:	
In museum June 30, 1906	1,197
Received during the year	6
In museum June 30, 1907	1,203
Section of comparative anatomy:	
In museum June 30, 1906	1,410
Donated to McGill University, Montreal, Canada	597
In museum June 30, 1907	813
Microscopical section:	
In museum June 30, 1907	12,916
Miscellaneous section:	
In museum June 30, 1906	2,951
Received during the year	46
In museum June 30, 1907	2,997
Provisional pathological section:	
In museum June 30, 1906	1,025
Donated to McGill University, Montreal, Canada (duplicates)	306
In museum June 30, 1907	719
Provisional anatomical section:	
In museum June 30, 1907	378
Photographic series:	
In museum June 30, 1907	2,542
Received during the year	2
In museum June 30, 1907	2,544

RECAPITULATION.

Specimens in museum June 30, 1906	35,229
Discarded and donated	1,446
	33,783
Added during the year	426
Specimens in museum June 30, 1907	34,209

The following are some of the interesting specimens received during the fiscal year ending June 30, 1907:

Among the pathological specimens contributed to the museum was a series of 30 by Maj. William H. Arthur, surgeon, U. S. Army, in charge of Barnes Hospital, District of Columbia; these were largely used in the pathological laboratory of the Army Medical School. From the United States Army General Hospital at Fort Bayard, N. Mex., were received 93 specimens, showing tuberculosis of different organs, sent by Dr. C. A. Treuholtz, contract surgeon, U. S. Army, and several also by First Lieut. R. H. Pierson, assistant surgeon, U. S. Army. Acknowledgment is also due to Dr. William G. McCallum, of Johns Hopkins Hospital, Baltimore, Md., and to Drs. L. W. Glazebrook and J. E. Mitchell, of Washington, D. C., for their interest in contributions of specimens.

The following are worthy of special mention:

Parasites.—Specimens 13261, 13262, Uncinaria americana; contributed by Capt. Bailey K. Ashford, assistant surgeon, U. S. Army. Also by Captain Ashford, specimens 13474–13476, the liver, spleen, and jejunum from a child who died of uncinariasis. Specimen 13565, Hymenolepis (tænia) nana, passed at stool by a man; contributed by

Capt. F. F. Russell, assistant surgeon, U. S. Army. Specimen 13563, Trichuris trichiura, from human intestine: by Capt. P. M. Ashburn and Lieut. C. F. Craig, assistant surgeons, U. S. Army.

Malformations.—Specimen 13511, diprosopus, in a kitten; contributed by Mr. Harry N. Hill, Bladensburg, Md. Specimen 13383, diprosopus triotus, in a new-born calf that had to be decapitated to be delivered; by Drs. R. E. and Edward Ferneyhough, veterinary surgeons, Washington, D. C. Specimen 13510, notencephalus in an infant that lived twenty-three hours; from Dr. Howard Hume, Washington, D. C. Under this head also may be placed specimen 13204, fetus papyraceus; by Dr. H. S. Medford, Washington, D. C.

Acromegaly.—Specimen 13526, casts of hands and foot showing the enlargement, from man, age 59; purchased.

Yellow fever.—Specimens 13206–14, the lung, liver, spleen, pancreas, kidney, stomach, and intestine; from a case in the New Orleans epidemic of 1906; by Dr. O. L. Pothier, New Orleans.

Diphtheritic dysentery.—Specimens 13371–4, of ileum and colon; from the Army Board for the Study of Tropical Diseases, Manila, P. I.

Malignant cholera.—From the same board and from Filipinos.

Specimens 13321–7, the heart, showing atrophy and hemorrhages, ulcerated stomach, ileum with enlarged solitary follicles, atrophied liver and spleen, and kidney showing atrophy and congestion; from a man who was sick only twelve hours. Specimens 13340–2, another case; congested stomach, ileum with thickened Peyer's patches, and kidney showing acute parenchymatous inflammation. Specimens 13357–8, the ileum showing enlarged Peyer's patches and solitary follicles; in this case the patient had leprosy but died of cholera.

Cerebro-spinal meningitis.—Specimen 13396, the brain from a man, age 32, whose wife died of the disease a few hours before he did; contributed by Dr. E. E. Richardson, Washington, D. C.; published in Washington Medical Annals, Volume V, 1906–7, page 391.

Tuberculosis.—A series of specimens 13273 and 13309, from the hospital at Fort Bayard, N. Mex. The two most interesting cases were specimen 13297, in which in a cavity in the lung an aneurism formed that ruptured and caused fatal hemorrhage; and specimen 13298, in which the pressure of tuberculous glands on the pulmonary artery caused dilatation of the right side of the heart; by Dr. C. A. Treuholtz, contract surgeon, U. S. Army, Fort Bayard, N. Mex.

Leprosy.—All these were from Filipinos and were received from the Board for the Study of Tropical Diseases, U. S. Army, at Manila, P. I. Specimens 13318–20, tubercular leprosy, with tuberculosis of larynx, an atrophied kidney and leprous hand and foot; in a man, age 29, who had had the disease for thirteen years; no other member of his family was affected. Specimens 13328–32, from a man who had had the disease about two years; the head and a piece of the skin, the liver, showing atrophy and fatty degeneration; spleen, large and fibrous; congested kidney. Specimen 13333, the skin from a leprous woman. Specimens 13334–9, from a man; claw hands, ulcerated larynx, ulcerated colon, atrophy of liver, hypertrophy of spleen, and anæmic kidney. Specimens 13351–5, the head, claw hands and feet, fatty and fibrous liver, and fibrous kidney. Specimen 13356, skin from a man who died of malignant cholera. Specimen 13359, claw hands. Specimens 13405–6, spleen and kidney. Specimens 13449–50, tubercular leprosy of ears and feet. Specimens 13451–2, tubercular leprosy of hands and feet. Specimens 13521–4, tubercular leprosy; lung, liver, heart, and colon.

Nervous system.—Specimen 13220, lobulated endothelioma of pia mater, 2.5 by 1 inch; contributed by Dr. W. P. Carr, Washington, D. C. Specimen 13266, spindle-celled sarcoma of brain; from a soldier, age 47; no secondary growths; contributed by Capt. L. T. Hess, assistant surgeon, U. S. Army.

Circulatory apparatus.—Tubercular pericarditis: Specimens 13518–9, from a man, age 24, who died of acute pulmonary tuberculosis; by Dr. D. S. Lamb. Melanoma of heart: Specimen 13237, the tumor was attached to the mitral valve by a pedicle; by Maj. Wm. H. Arthur, surgeon, U. S. Army. Specimens 13343–5; stenosis of mitral valve and vegetative endocarditis with hemorrhagic infarctions in lung and kidney, from a woman, age 50; by Doctor Lamb. Aneurism of arch of aorta: Specimen 13364; dissecting aneurism, with hemorrhage into pericardium and subpericardial tissues, in a man, age 62, who had a history and lesions of syphilis; by Doctor Lamb; published in Washington Medical Annals, 1906–7, Volume V, page 408. Specimen 13454, aneurism of arch and tuberculosis of heart; rupture into left bronchus and fatal hemorrhage; man, age 33; by Dr. J. B. Nichols, Washington, D. C.; published in Washington Medical Annals, 1907–8, Volume VI, page 142. Specimen 13466, aneurism of arch, rupture into mediastinum and fatal hemorrhage; by Maj. W. H. Arthur, surgeon, U. S. Army. Specimen 13528, two aneurisms of arch, one of which had healed; rupture of the other into an abscess of the neck and fatal hemorrhage; woman, age 41, by Doctor Lamb; published in Washington Medical Annals, 1907-8, Volume VI, page 207. Acute thyroiditis: Specimen 13488, in a woman, age 36; there was also acute laryngitis from which she died; by Doctor Lamb; published in the Annals, 1907-8, Volume VI, page 243.

Respiratory apparatus.—Specimen 13272, abscess of lung secondary to abscess of liver; by Dr. C. A. Treuholtz, contract surgeon, U. S. Army. Specimens 13492 and 13495, miner's lung that was also affected with cancer nodules; the patient, a soldier, died of primary cancer of pharynx; by Maj. W. H. Arthur, surgeon, U. S. Army; published in Washington Medical Annals, 1907, Volume VI, page 244. Specimens 13502-3, endothelioma of lung and heart; from a soldier; by Maj. W. C. Borden, surgeon, U. S. Army.

Digestive apparatus.—Specimen 13564, cancer of œsophagus, in woman, age 52; secondary involvement of neighboring glands; death from exhaustion; by Doctor Lamb. Specimen 13471, stomach, hour glass contraction from peritonitis; by Dr. J. D. Murray, Washington, D. C. Specimens 13347-8, cancer of stomach and pancreas, with secondary tumors in liver; death by hemorrhage from stomach; by Maj. W. H. Arthur, surgeon, U. S. Army. Specimen 13480, pseudomembranous ileocolitis, with perforated gangrenous appendix and death from peritonitis; woman, age 28; by Doctor Lamb; published in Washington Medical Annals, 1907-8, Volume VI, page 145. Specimen 13484, cancer of rectum, in woman, age 20; by Dr. J. F. Mitchell, Washington, D. C.; published in Washington Medical Annals, 1907-8, Volume VI, page 147. Specimen 13491, adeno-carcinoma of colon, in woman, age 35; by Dr. A. L. Stavely, Washington, D. C.; published in Washington Medical Annals, 1907-8, Volume VI, page 241. Specimen 13363, hernia: inguinal hernia, strangulated, in man, age 21; gangrene and death; by Doctor Lamb; published in Washington Medical Annals, 1906-7, Volume V, page 408. Ventral hernia, specimen 13500, woman, age 65; operation, death; by Dr. I. S. Stone, Washington, D. C. Specimen 13350, invagination of ileum, in girl, age 3 years, who died of the obstruction; by Dr. Lamb.

Experimental gastro-intestinal work on dogs; all successful: Specimen 13485, gastro-enterostomy. Specimens 13513-4, gastro-enterostomy and entero-enterostomy. Specimen 13486, enterorrhaphy; by Dr. H. H. Kerr, Washington, D. C. Specimen 13399, congenital cysts of liver; by Dr. Wm. G. McCallum, Baltimore, Md. Specimens 13224-6, angiosarcoma of liver; secondary tumors in lung; by Maj. W. H. Arthur, surgeon, U. S. Army. Specimen 13241, endothelial angiosarcoma; the liver was studded with the nodules; by Capt. D. C. Howard, assistant surgeon, U. S. Army. Specimen 13481, hemorrhagic pancreatitis, from a soldier, age 40, who had advanced pulmonary tuberculosis; by Maj. W. H. Arthur, surgeon, U. S. Army.

Urinary apparatus.—Specimen 13234, horseshoe kidney; by Maj. E. C. Carter, surgeon, U. S. Army. Specimen 13472, calculi, large branching calculus weighing 1,850 grams, removed after death from kidney of man, age 41, who worked at his trade until within twenty-four hours of his death, which was caused by uremia; by Dr. J. F. Menestrina, St. Louis, Mo. Specimen 13317, renal calculi, microscopical sections; by Dr. H. A. Fowler, Washington, D. C. Specimen 13562, angiosarcoma of kidney; there were secondary tumors in the testicle; from a soldier; by Maj. W. C. Borden, surgeon, U. S. Army.

Hypernephroma of kidney.—Specimen 13402; by Dr. W. G. McCallum, Johns Hopkins University. Specimen 13388, from a man, age 54; removed, recovery; by Doctor Stone, published in Washington Medical Annals, 1906-7, Volume V, page 394. Specimen 13310, weight 12.5 pounds; death one hour after removal; by Dr. J. W. Bovée, Washington, D. C. Specimen 13229, also by Doctor Bovée; removed from woman, age 53; had been growing five years; published in Surgery, Gynecology, and Obstetrics, July, 1906.

Generative apparatus.—Specimen 13515, cysts of epididymis, from army officer; removed and contributed by Maj. W. C. Borden, surgeon, U. S. Army. Specimen 13395, one-half of a cystic myoma of uterus; the entire tumor weighed 89 pounds; from woman, age 58, who recovered and resumed her usual employment; by Dr. T. S. Cullen, Baltimore, Md.; published in Maryland Medical Journal, 1907, page 30. Specimen 13246, round-celled sarcoma of uterus; removed and contributed by Dr. J. W. Bovée, Washington, D. C. Specimen 13365, spindle-celled sarcoma of ovary, weighing 11 pounds 10 ounces; removed and contributed by Dr. J. W. Bovée, Washington, D. C.

Ectopic pregnancy.—Abdominal form, specimen 13242, from a woman, age 28; had been married eight years and no children; by Dr. I. S. Stone; published in Washington Medical Annals, 1906-7, Volume V, page 159. Specimen 13346; tubal pregnancy, in woman, age 32, rupture of sac; removed and contributed by Dr. J. T. Kelley, Washington, D. C. Specimen 13362, tubal pregnancy in woman, age 34; death by hemorrhage from rupture; by Doctor Lamb; published in the Annals, 1907–8, Volume VI, page 50.

Osseous system.—Specimen 13227, fracture of body of fifth cervical vertebra from a soldier who dived in shallow water; laminectomy was done next day; died from exhaustion three months after injury; by Dr. F. B. Johnson, contract surgeon, U. S. Army. Specimen 13512, shot fracture of frontal bone; bullet lodged and remained many years; from a soldier; by Maj. W. H. Arthur, surgeon, U. S. Army. Specimen 13205, healed oval ulcer of leg after chronic osteo-myelitis; contraction lasted about twenty years; by Maj. W. F. Lippitt, surgeon, U. S. Army. Specimen 13455, giant-celled sarcoma of femur; woman, age 22; by Dr. J. F. Mitchell; published in Washington Medical Annals, 1907–8, Volume VI, page 146. Specimen 13376, periosteal fibro-sarcoma of bone; by Maj. W. H. Arthur, surgeon, U. S. Army. Specimens 13531–13561, series of bone preparations showing healed fractures and dislocations and osteo-arthritis; purchased. Specimens 13407–13448, series of bones from Indian mounds at Moundville, Ala., including 4 specimens of healed fracture; 6 of exostoses, cause unknown; 1 of an interparietal bone; 2 showing posterior flattening of skull, and 27 specimens that show changes due to syphilis; collected and contributed by Clarence B. Moore, of Philadelphia, Pa.

The following Buchhold preparations were purchased from Pippow, Berlin: Specimen 13311, kidney of cow, showing pyelonephritis. Specimen 13312, melanotic sarcoma of heart of horse. Specimen 13313, tuberculous broncho-pneumonia.

An interesting addition to the miscellaneous section was a series of 36 surgical instruments, Nos. 3070 to 3101, found in the excavation of Pompeii. The collection includes a rectal speculum, trivalve and quadrivalve vaginal specula, trocar and canula, cautery iron, lancet, crotchet, spatulæ, forceps with depilator, craniotomy forceps, surgical forceps, pressure forceps, bone elevator, spoons, probes, male and female catheter, drainage tube, retractor, bone chisel, and seton needle for a horse.

LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

The following table shows the additions made to the library during the fiscal year 1906–7:

Description.	On hand June 30, 1906.	Added during fiscal year.	Total June 30, 1906.
	Volumes.	*Volumes.*	*Volumes.*
Medical journals	48,630	1,388	50,018
Medical transactions	7,724	276	8,000
Bound theses	2,442	102	2,544
Bound pamphlets	2,875	1	2,876
Other medical books	97,120	1,737	98,857
Total	158,791	3,504	162,295
Medical theses	73,730	2,650	76,380
Medical pamphlets	205,968	3,585	209,553
Total	279,698	6,235	285,933

There were presented to the library during the year 521 books and 5,249 pamphlets and journals.

Volume XII, second series, of the Index Catalogue, includes the literature from the letter "O" to the end of "Periodicals," and forms a volume of 978 pages. It will be ready for distribution at the usual time. The manuscript for Volume XIII is in course of preparation.

ARTIFICIAL LIMBS AND APPARATUS.

Under the laws relating to artificial limbs, apparatus, or commutation therefor, orders on manufacturers were given during the fiscal year for 27 artificial legs, 2 arms, and 1 foot. Commutation certificates were issued for 170 cases of amputated leg, 125 amputated arm, 10 of amputated foot, and 2,339 cases of the loss of the use of a limb.

Under the act of June 17, 1870, and subsequent amendments thereto, 23,235 disabled soldiers and sailors have been furnished artificial limbs, or apparatus, or have received commutation in money, as follows: Total number benefited to June 30, 1907, 23,235; died, 10,864; dropped from rolls, 592; rejected after one or more payments, 559; remaining on rolls at the end of the fiscal year, 11,220.

Two-thirds of the periodical claims for the benefits under the artificial-limb laws for the three years ending June 30, 1911, become due in the fiscal year 1909. To meet these claims it is estimated that the sum of $410,000 will be required.

APPLIANCES AND TRUSSES.

One hundred and sixty-nine appliances were issued during the fiscal year and 642 trusses were furnished and fitted.

The following table, referred to on page 32 of this report, shows in detail the surgical operations reported by medical officers as having been performed by them on officers and enlisted men of the army during the calendar year 1906:

Surgical operations performed on American troops.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Eye.										
Enucleation	Lacerated and punctured wounds, eyeball.	5	5				1	4			
	Complete opacity of cornea due to gonorrheal ophthalmia.	1	1				1				
Thyroidectomy	Exophthalmic goitre	1	1					1			
Excision of excrescences	Iritis and retinitis	1	1							1	
Tenotomy of internal rectus.	Concomitant strabismus	1	1							1	
Excision, 22; transplantation, 1.	Pterygium	23	23				1	2		20	
Excision	Ocular cyst	1	1							1	
Incision curettage and packing.	Dacryocystitis	1	1					1			
Extraction	Foreign body embedded in cornea.	4	4							4	
	Ear.										
Opening of mastoid cells	Mastoiditis	2	2					2			
Opening of mastoid cells, 2; paracentesis, 7.	Otitis media, purulent	9	8			[a]1	1	1		4	3
Curettage	Carious bone region of annulus.	1	1								1
Incision	Atresia, auditory canal	1	1				1				
Do	Abscess, auditory canal	2	2					1			1
Excision with snare, 8; curettage, 1.	Aural polypus	9	9							9	
	Nose.										
Excision with saw	Exostosis of nasal septum.	14	14							14	
Fracture and replacement of cartilage, 1; submucous resection, 13; Asch's operation, 1.	Deflected septum	15	15					1		13	1

[a] Died of pachymeningitis due to sarcoma, petrous portion of temporal bones.

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Nose—Continued.										
Gleason's operation, 10; Asch-Cooper's operation, 1.	Deviated septum	11	11							11	
Excision with snare, 19; removal with forceps, 2; electro-cautery, 6; chromic acid, 24.	Hypertrophy of turbinate bodies.	51	51					1		24	26
Excision with snare	Polypus	10	10							9	1
Excision with saw	Nasal spur	1	1							1	
Trephining of antrum and curettage.	Inflammation of maxillary sinus.	4	3	1			3				1
Incision and removal of coal dust.	Disfiguring scar bridge of nose	1	1								1
	Mouth, pharynx, and esophagus.										
Excision	Epithelioma of lower lip	2	2				1			1	
Uranoplasty	Cleft palate	1	1					1			
Excision	Papilloma of tongue	1	1								1
Tonsillectomy	Hypertophy of tonsil	9	9							7	2
	Chronic tonsillitis	26	26				3			20	3
	Follicular tonsillitis	3	3							2	1
	Disease not stated	25	25				1	6		6	12
Excision, 121; curettage, 1	Post-nasal adenoids	122	122				9	7		99	7
	Neck and thorax.										
Incision and suturing	Fracture of larynx	1	1							1	
Cleansing and suturing	Incised wound, opening trachea.	1	1								1
Excision	Sinus of neck	1			1					1	
Removal of one-half of gland.	Bronchocele	1		1			1				
Extirpation	Thyroid cyst, large	1	1				1				
Rib resection	Pulmonary gangrene	1	1				1				
Incision and drainage, 5; rib resection, 6; paracentesis, 1.	Empyema	12	12				6	4	1	1	
Thoracotomy, 2; tapping, 5; aspiration, 6	Pleurisy	13	12	1			1	2		4	6
Thoracotomy	Gunshot wound of thorax	1	1				1				
Removal of necrosed bone, 1; incision and curettage, 1.	Sinus of chest	2	2				1				1
	Abdomen and contents.										
Partial gastrectomy and gastroenterostomy	Carcinoma of pylorus	1			1				1		
Resection of rib, 7; incision and drainage below costal border, 7; aspiration, 1; exploratory puncture, 1.	Abscess of liver	16	12	1		3	2	13	1		
Exploratory celiotomy	Suspected abscess of liver	1			1			1			
	Suspected gallstones	2	2					2			
	Cancer of bile duct	1				1		1			
	Tumor of pancreas	1	1					1			
	Retroperitoneal sarcoma	1				1		1			
	Intestinal obstruction	1				1		1			
	General peritonitis	2			1	1	1	1			
Cholecystotomy	Gallstones	5	5					5			
Do	Cholecystitis	4	3	1			1	3			
Tapping, 1; celiotomy, 1; resection 2 inches ileum; anastomosis with Murphy button, 1.	Tubercular peritonitis	3	1		2		1		2		
Laparotomy	Peritonitis due to nonperforating typhoid ulcer.	1	1						1		

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Abdomen and contents—Continued.										
Laparotomy	Stab wound penetrating left lobe of liver.	1	1				1				
Do	Penetrating gunshot wound with intestinal perforation.	5	1			4	1	2	2		
Do	Spear wound abdomen	1				[a] 1	1				
Laparotomy for control of hemorrhage.	Punctured wound abdomen.	1	1					1			
Enlargement of wound and ligation of omental vessels, 1; excision of portion of omentum, 1.	Incised wound abdomen	2	2				1	1			
Appendectomy, 177; incision of appendiceal abscess, 6.	Appendicitis	183	174	1		[b] 8	46	128	9		
Appendicostomy	Chronic dysentery	5	4		1			5			
Exploratory laparotomy, breaking up of adhesions, and removal of appendix.	Suspected gallstones; found old and extensive adhesions.	1	1						1		
Laparotomy, breaking up of adhesions, and removal of foreign body.	Intestinal obstruction; gauze drain left in peritoneal cavity after laparotomy.	1	1					1			
Laparotomy, tying and dividing adhesions.	Intestinal obstruction due to adhesions following appendectomy.	2	2					2			
Resection of scar, double entorrhaphy, and anastomosis with Murphy button.	Fecal fistula following appendectomy.	1	1					1			
Incision curettage and drainage.	Suppurating sinus following laparotomy.	3	2		1		1	1		1	
Bassini operation, 122; Bassini modified operation, 23; Johns Hopkins operation, 3; Ferguson's operation, 5; Andrews operation, 2; Bloodgood's operation, 2; MacEwen's operation, 1; Halstead's modified operation, 1; atypical operation, 2; operation not stated, 14.	Inguinal hernia	[c] 175	171		3	[d] 1	46	116	13		
Bassini operation, 1; Bassini modified operation, 1.	Femoral hernia	2	2					2			
Excision of scar and layer suture, 7; Mayo's modified operation, 2; operation not stated, 3.	Ventral hernia	[e] 12	12				2	9		1	
Bassini operation, 2; Bevan's operation, 1.	Epiplocele	3	3					3			
Marsupialization	Retroperitoneal cyst	1	1					1			
Incision and drainage	Postcecal abscess	1	1					1			
Do	Iliac abscess	1	1					1			
Tapping	Ascites	3	3							3	

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[a] Received in action.

[b] One death from ether and chloroform narcosis.

[c] Two bilateral, four recurrent.

[d] Death due to peritonitis from accidental wounding of bladder.

[e] Appeared in appendiceal scar in eight cases.

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Anus and rectum.										
Incision and curettage, 10; incision and drainage, 14; incision and cautery, 1; operation not stated, 1.	Ischio-rectal abscess	26	26				3	3		19	1
Incision and drainage, 5; incision and curettage, 1.	Peri-rectal abscess	6	6							2	4
Longitudinal cauterization.	Prolapse of rectum	1	1				1				
Excision, 22; excision and curettage, 16; curettage, 8.	Fistula in ano	46	45	1			7	24		14	1
Divulsion, 4; division of sphincter, 1; cauterization, 1.	Fissure of anus	6	6				3	2	1		
Division of sphincter, 1; Tuttle's operation, 1.	Prolapse of anus	2	2				1		1		
Divulsion and cautery	Ulcer of anus	1	1							1	
Excision, 84; ligation, 41; thermo-cautery, 2; clamp and cautery, 45; Whitehead's operation, 8; Allingham's operation, 1; Pitcher's operation, 2; Earle's operation, 1; incision and curettage, 2; incision and removal of clot, 9.	External hemorrhoids, 91; internal hemorrhoids, 35; mixed hemorrhoids, 33; variety of hemorrhoids not stated, 36.	195	194	1			50	73	4	63	5
Clamp and cautery, 1; excision, 1.	Condylomata around anus.	2	1		1		1	1			
	Genito-urinary system.										
Orchidectomy	Chronic orchitis	5	5				2	2		1	
	Orchidoncus	1	1					1			
	Subacute orchitis following operation for varicocele.	1	1						1		
Partial epididymectomy.	Epididymitis	2	2					1		1	
	Epididymitis gonorrheal.	4	4					2		2	
High excision, 120; low excision, 16; Bennett's high excision, 3; Phelps operation, 1; excision, site not stated, 23.	Varicocele	163	163				47	96	4	16	
Tapping and injection of phenol, 2; tapping and injection tincture of iodine, 6; excision of tunica vaginalis, 10; Volkmans operation, 4; open method, 1; tapping, 5.	Hydrocele	28	26	2			6	7	1	7	7
Excision	Cyst of epididymis	1	1				1				
Nephropexy	Congenital displacement of kidney.	1			1[a]			1			
Nephrotomy	Suspected pyelonephritis.	1	1					1			
Incision and drainage	Perinephritic abscess	1	1				1				
Laparotomy	Rupture of bladder	1				1			1		
Perineal cystotomy, 1; combined supra-pubic and perineal cystotomy, 1.	Vesical calculus	2	2				2				
Perineal cystotomy	Chronic cystitis	1	1				1				
External urethrotomy and drainage.	Chronic cystitis and dilatation of bladder.	1		1						1	

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[a] Pedicle too short to permit proper placement.

Surgical operations performed on American troops—Continued.

Operation.	Diseases or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Either.	Chloroform and either.	Local.	None.
	Genito-urinary system—Continued.										
Prostatectomy	Chronic hypertrophic prostatitis.	1		1						1	
Incision and drainage	Prostatic abscess	4	4				1			3	
Internal urethrotomy	Gonorrheal abscess of Cowper's gland.	1	1				1				
Incision and drainage, 2; incision and curettage, 1.	Cowperitis	3	3					2		1	
Perineal section	Rupture of urethra	2	2						1	1	
Perineal section and curettage.	Perineal fistula	3	3					3			
Amputation	Epithelioma of penis	1	1						1		
Plastic	Downward arching of penis.	1	1					1			
External urethrotomy, 2; internal urethrotomy, 11; rapid dilatation, 7.	Stricture of urethra	20	20				1	1	1	17	
Incision and curettage	Urethral fistula	1	1							1	
Do	Peri-urethral fistula	1	1							1	
Incision and drainage	Peri-urethral abscess	3	3							3	
Do	Cellulitis of penis	1	1				1				
Meatotomy	Stricture of meatus	3	3							2	1
Circumcision	Phimosis	189	189				16	12		161	
	Paraphimosis	8	8				1			7	
	Redundant prepuce	77	77				5	4		68	
	Elongated prepuce	37	37				4			33	
	Balanitis	7	7							7	
	Posthitis	1	1							1	
	Chancre	5	5							5	
Circumcision, 9; excision, 5.	Chancroid	14	14				6			8	
Ablation and cauterization, 2; circumcision, 2.	Condylomata	4	4				1	2		1	
Curettage	Tubercular ulcer of scrotum.	1	1							1	
Retrenchment	Redundant scrotum	2	2					2			
Do	Lymph scrotum	1	1					1			
	Vascular system.										
Excision, 12; ligation, 5; multiple excision, 3; multiple ligation, 3; Trendelenburg's operation, 4; Keller's operation, 3; Schede's operation, 1.	Varicose veins	31	30	1			8	15	2	5	1
Ligation	Severed radial artery, 2; severed ulnar artery, 1.	3	3				2				1
	Nervous system.										
Trephining	Epilepsy believed to have resulted from old gunshot wound of head.	1	1						1		
Do	Compression of brain	1	1					1			
Do	Concussion of brain	1	1				1				
Laminectomy, seventh cervical and first dorsal vertebræ.	Compression of spinal cord.	1			1			1			
Excision of cicatrix and freeing of nerve.	Contracted scar, involving ulnar nerve.	1	1					1			
Exploratory incision, radial side forearm.	Possible injury to nerve from old bolo wound; nothing abnormal found.	1	1					1			
Excision end of nerve	Painful stump	1	1							1	
Dry stretching	Sciatica	2	1	1				2			
Morton's operation	Metatarsalgia	1	1					1			

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Skin and cellular tissues.										
Curettage and cauterization.	Abrasion of thigh from explosion of dynamite caps.	2	2					2			
Incision between radius and ulna; through and through drainage, 1; incision and curettage, 1.	Acute infection of hand	2		1	1		2				
Incision and drainage, 39; excision, 1.	Cellulitis	40	39	1			6	2		20	12
Incision and drainage, 241; incision and curettage, 5.	Abscess	246	238	6	1	1	18	11		127	90
Incision and curettage, 10; incision and drainage, 5.	Carbuncle	15	15				3	1		7	4
Incision and drainage, 5; incision and curettage, 2.	Phlegmon	7	7				2			4	1
Incision and curettage	Fistula	4	3	1			1	1		2	
Incision and cauterization, 1; incision and packing, 1; excision, 2; curettage, 6.	Sinus	10	7	2	1		4	4		2	
Excision	Callus of palm	1	1							1	
Resection	Painful scar	4	3		1					2	2
Excision	Keloid	3	2	1			2		1		
	Lymphatic system.										
Excision	Carcinoma of cervical glands.	1	1					1			
Excision, 6; incision and drainage, 1.	Cervical adenitis	7	7				5	2			
Excision, 8; incision and curettage, 2.	Cervical adenitis, tubercular.	10	10				2	1	2	5	
Excision, 1; incision and drainage, 1.	Epitrochlear adenitis	2	2				1			1	
Incision and drainage, 344; incision and curettage, 95; excision, 254.	Inguinal adenitis: Venereal, 423; nonvenereal, 77; tubercular, 1; traumatic, 1; cause not stated, 191.	693	692	1			226	115	3	237	112
Incision and curettage	Femoral adenitis	3	3				1			2	
Do	Infected glands, popliteal.	1	1				1				
Excision and drainage	Lymphadenitis	3	3					3			
Incision and drainage	Lymphangitis	2	2								2
	Muscles, tendons, fasciæ, ligaments, and bursae.										
Division of fascia, 2; division of fascia and tenotomy, 1.	Dupuytren's contraction.	3		2	1					3	
Excision	Adherent skin to tendon.	1	1					1			
Tenorrhaphy	Severed tendon; wrist, 2; hand, 1; finger, 2; foot, 1.	6	5	1			2	2		1	1
Incision and curettage	Tuberculosis tendon sheaths.	1	1							1	
Suturing of fascia lata	Hernia of adductor longus.	2	1		[a] 1		1	1			
Resection of fibrous tissue and suturing.	Severed tibialis anticus (old).	1			1					1	
Tenorrhaphy	Rupture of tendo-Achilles	1	1					1			
Incision and curettage	Tendosynovitis	1	1					1			
Excision	Ganglion following tendosynovitis.	1	1							1	

[a] Third operation.

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Muscles, tendons, fasciæ ligaments, and bursae—Continued.										
Excision, 4; Weir's operation, 1; incision and drainage, 1.	Bursitis	6	5	1				2		4	
Partial excision distal end first metatarsal bone, 1; excision of joint, 3.	Bunion	4	4					2		2	
	Bones.										
Trephining, 8; removal of depressed fragments and clots, 6.	Fracture of skull	14	10		2	2	4	2	2	1	5
Wiring of fragments	Fracture of lower jaw	6	5	1			4	1		1	
Excision of portion, 2; curettage, 2.	Necrosis of lower jaw following fracture.	4	4				3	1			
Removal of bony projection, site of union.	Fracture of clavicle (old).	1	1					1			
Removal of bone fragments.	Gunshot wound of shoulder.	2	2				2				
Removal of bone fragments, 1; wiring of fragments, 2.	Fracture of humerus	3	3					3			
Resection and wiring	Deformity of arm resulting from old fracture.	1	1					1			
Excision	Osteoma head of humerus.	1	1					1			
Removal of fragment	Fracture internal condyle of humerus.	1	1					1			
Clearing of interposed tissue and freshening of ends of bone.	Compound fracture both bones forearm (old).	1			1		1				
Wiring of fragments	Compound fracture both bones forearm.	1	1				1				
Incision and coaptation	Fracture of ulna	1	1				1				
Open incision, refracture and reposition.	Vicious union of radius	2	2					2			
Removal of bone fragments and through and through drainage established.	Perforating gunshot wound forearm.	1	1				1				
Open incision and wiring of fragments.	Ununited fracture of olecranon.	2	2				1	1			
Removal of wire suture	Fracture of olecranon (old).	1	1					1			
Incision and curettage	Tuberculosis both bones forearm.	1	1					1			
Do	Tubercular periostitis radius.	1		1					1		
Excision of carpal bones.	Tubercular osteitis, carpal bones.	1	1					1			
Resection three-fourths inch of ulna, to permit function in new position.	Complicated fracture radio-carpal joint, impaction head of radius, and fracture lower end of ulna.	1	1					1			
Incision and removal of bone fragments.	Gunshot wound of hand	1	1				1				
Exposing fracture and coaptating fragments.	Fracture of metacarpal	1	1				1				
Resection	Vicious union, metacarpal	3	3					3			
Excision of bone, 1; incision and curettage, 1.	Osteoperiostitis, metacarpal.	2	2					1		1	
Excision of growth	Exostosis head of metacarpal.	1	1						1		
Removal of dead bone, 3; curettage and transplantation of skin flap, 1.	Necrosis of phalanx	4	4				1	1		2	
Sequestrotomy	Necrosis of sternum	1	1				1				
Resection	Necrosis of rib	1	1					1			

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Bones—Continued.										
Incision and curettage	Necrosis of coccyx	1	1				1				
Sequestrotomy	Necrosis of femur	2	1	1			1	1			
Removal of fragment	Compound fracture of femur.	1			1			1			
Kangaroo tendon suturing, 1; transverse incision into joint, removal of clot, and suturing of patellar fascia, 1.	Fracture of patella	2	2					2			
Incision, cleansing, and drainage.	Compound fracture, both bones leg.	1	1					1			
Resection both bones	Compound comminuted fracture both bones, leg.	1		1				1			
Resection and wiring	Fracture of tibia	1	1				1				
Wiring of fractured ends.	Compound fracture of tibia.	1	1				1				
Incision and removal of necrosed area.	Osteoperiostitis of tibia	2	1	1			2				
Incision and curettage	Tubercular periostitis of tibia.	1	1				1				
Removal of dead bone, 2; incision and curettage, 1.	Necrosis of tibia	3	3					1		2	
Excision of growth	Exostosis of tibia	1	1					1			
Tenotomy tendo-Achilles and suturing of fibula in proper position.	Fracture of fibula and simple fracture outer tip articular surface of tibia.	1		1				1			
Incision and drainage	Periosteal abscess	1	1					1			
	Joints.										
Wiring acromio-clavicular articulation.	Dislocation shoulder joint	1	1					1			
Exploratory incision	Subglenoid and acromioclavicular dislocation.	1	1							1	
Gouging out manubrium to form receptacle for head of clavicle and suturing of capsule.	Old dislocation, sterno-clavicular joint.	1	1					1			
Incision and drainage	Infected wound elbow joint.	1	1				1				
Excision of necrotic portion.	Osteo-arthritis ulna	1	1				1				
Arthrotomy, and suturing of ligaments.	Dislocation carpal end of ulna.	1	1					1			
Incision into joint and reduction.	Dislocation metacarpophalangeal joint.	1	1				1				
Incision and drainage	Chronic osteo-arthritis, sacro-iliac joint, causing abscess.	1	1					1			
Arthrectomy	Arthritis, kneejoint	1	1					1			
Aspiration	Contusion kneejoint	1	1						1		
Anchoring of cartilage, 2; removal one-fourth antero-internal portion, 1.	Dislocation of semilunar cartilage.	3	3					3			
Removal of mass	Floating cartilage kneejoint.	6	6					2	1	3	
Excision portion of bone and reduction.	Upward dislocation middle cuneiform.	1		1						1	
Reduction and wiring to adjacent bones.	Downward dislocation cuboid.	1			1					1	
Resection head of phalanx.	Ankylosis metatarsophalangeal joint.	2	2							2	
Excision of bone and tenotomy, 1; excision of joint, 9; Keller's operation, 2; Weir's operation, 1.	Hallux valgus	13	10	2	1		5	8			

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Joints—Continued.										
Resection of joint, 3; subcutaneous division of tendon and ligaments, 1.	Hammer toe	4	3	1					3	1	
Incision and drainage	Synovitis	2	2					1			1
	Amputations.										
Disarticulation of shoulder joint.	Gunshot fracture of arm.	1	1					1			
Amputation:											
Middle third	Compound comminuted fracture of arm.	1	1				1				
Site not stated	Crushing of arm	1				[a] 1	1				
Forearm, junction upper and middle thirds.	Osteo-sarcoma of thumb.	1	1				1				
Forearm, lower third.	Tubercular wrist	2	2					2			
Thumb, 11; finger, 57.	Gunshot wound 19 Other injuries 32 Epithelioma 1 Other diseases 8 Reamputation 1 Supernumerary 1 Cause not stated 6	68	68				29	21	1	15	2
Site not stated	Spear wound of thigh	[b] 1				1	1				
Thigh, lower third	Necrosis, bones of knee-joint.	1	1				1				
Thigh, site not stated.	Gangrene following leg amputation.	1	1					1			
Disarticulation, knee-joint (Stephen Smith's)	Compound complicated fracture, leg.	1	1					1			
Amputation, leg:											
Upper third	Osteomyelitis, tibia	1	1					1			
Junction upper and middle thirds.	Crushing of leg	1	1						1		
Do	Lacerated wound of foot.	1	1							1	
Middle third	Gunshot wound of leg	1	1				1				
Do	Crushing of foot	1	1					1			
Do	Necrosis, bones of foot	1	1				1				
Lower third	Crushing of foot	1	1					1			
Do	Gunshot wound of foot	1	1				1				
Chopart's	do	1	1					1			
Toe	Injury, 5; deformity, 11	16	16				3	9		4	
	Foreign bodies.										
Excision	Embedded, piece of shell.	2	2				1	1			
	Embedded, bullet	20	19		1		1	1		14	4
	Embedded, needle	4	4					1	1	2	
	Encysted gun cap	1	1							1	
	Tumors.										
Do	Osteosarcoma, 1; chondroma, 2; cystic 8; dermoid, 3; fibroma, 7; lipoma, 9; papilloma, 5; sebaceous cyst, 35; wen, 1; tumor not named, 1.	72	72				11	9		42	10
	Plastic.										
Resection of scar and transplantation of skin grafts.	Cicatricial contraction	2	2				1			1	
Excision and transplantation of skin grafts.	Chronic ulcer	2	2					1		1	
Thirsch's method	Contused wound of hand.	1	1					1			

[a] Died of shock due to crushing injuries. [b] Received in action. Died of shock and hemorrhage.

Surgical operations performed on American troops—Continued.

Operation.	Disease or injury.	Number of cases.	Result.				Anesthetic.				
			Successful.	Partially successful.	Failure.	Died.	Chloroform.	Ether.	Chloroform and ether.	Local.	None.
	Miscellaneous.										
Incision and drainage of deep abscess.	Pyemia	5	5	....	....	....	....	....	5	....	....
Periosteal, muscular, and cutaneous suturing.	Incised wound, extending through crest of ilium.	1	1	1	....	....	1	....	....	....	....
Incision parallel with deep palmar arch, enlargement and packing of wound.	Gunshot wound of hand	1	1	....	....	....	1	....	....	....	....
Incision and drainage	Gunshot wound of thigh	3	2	1	....	....	2	....	....	....	1
Total number of cases.		3,189	3,091	42	28	28	684	861	73	1,234	337

STATISTICAL TABLES.

The following tables show in detail the statistical data upon which the statements in this report are based:

I. Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1906, compared with corresponding data for the year 1905, by races: absolute numbers.

II. Same as Table I; proportionate numbers.

III. Admissions to sick report, discharges, and deaths in the army, with ratios per 1,000 of mean strength, in which all available data for the period 1898–1904 are placed in comparison with the year 1906.

IIIa. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, year 1906, for officers and total enlisted of the army.

IIIb. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for American troops—white—and for American troops—colored—of the army for the year 1906.

IV. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906, United States continental, excluding Alaska, and separately for white and colored troops serving therein.

V. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906, Alaska, Cuba, and Hawaii.

VI. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906, American troops, white, colored, and total serving in the Philippine Islands.

VII. Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, year 1906, for American troops on transports and for native Porto Rican and Filipino troops.

TABLE I.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1906, compared with corresponding data for the year 1905, by races—Absolute numbers.*

		Mean strength.	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Total losses.			Noneffective from sickness.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Days treated.	Constantly non-effective.
White troops	1906	53,249	68,492	56,611	11,881	1,480	1,334	146	327	171	156	1,807	1,505	302	978,213	2,680.04
	1905	53,573	70,244	57,633	12,611	1,359	1,213	146	330	182	148	1,689	1,395	294	973,258	2,666.46
Colored troops	1906	3,194	3,579	2,828	751	43	40	3	31	21	10	74	61	13	47,602	130.42
	1905	3,328	3,498	2,592	906	105	95	10	38	24	14	143	119	24	42,972	117.73
Porto Rican troops	1906	544	819	751	68	6	6	......	9	9	......	15	15	......	9,515	26.07
	1905	550	773	713	60	12	11	1	3	2	1	15	13	2	11,612	31.81
Filipino troops	1906	4,759	6,263	5,593	670	51	47	4	58	45	13	109	92	17	60,430	165.56
	1905	4,732	5,905	5,382	523	21	21	......	51	32	19	72	53	19	58,212	159.48

TABLE II.—*Numerical view of the effect of disease and injury on United States troops serving at home and abroad in the year 1906, compared with corresponding data for the year 1905, by races—Proportionate numbers.*

		Mean strength.	Admitted.			Discharged on surgeon's certificate of disability.			Died.			Total losses.			Constantly non-effective.	Days treated.	
			Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.	Total.	Disease.	Injury.		Each soldier.	Each case.
White troops	1906	53,249	1,286.26	1,063.14	223.12	26.80	24.16	2.64	5.92	3.10	2.82	32.72	27.26	5.46	50.33	18.37	14.28
	1905	53,573	1,311.18	1,075.79	235.40	24.61	21.96	2.64	5.98	3.30	2.68	30.59	25.26	5.32	49.77	18.17	13.86
Colored troops	1906	3,194	1,120.54	885.41	235.13	12.84	11.94	.90	9.26	6.27	2.99	22.10	18.21	3.89	40.83	14.90	13.31
	1905	3,328	1,051.08	778.85	272.24	31.50	28.50	3.00	11.40	7.20	4.20	42.90	35.70	7.20	35.38	12.91	12.28
Porto Rican troops	1906	544	1,505.51	1,380.51	125.00	10.99	10.99	....	16.48	16.48	....	27.47	27.47	....	47.92	17.49	11.62
	1905	550	1,405.45	1,296.36	109.09	21.82	20.00	1.82	5.45	3.64	1.82	27.27	23.64	3.64	57.84	21.11	15.02
Filipino troops	1906	4,759	1,316.03	1,175.25	140.79	10.12	9.32	.79	11.51	8.93	2.58	21.62	18.25	3.37	34.79	12.70	9.65
	1905	4,732	1,247.89	1,137.36	110.52	4.24	4.24	....	10.71	6.47	4.24	14.95	10.71	4.24	33.70	12.30	9.86

TABLE III.—*Admissions to sick report, discharges, and deaths in the army, with ratios per 1,000 of mean strength, in which all available data for the period 1898–1904 are placed in comparison with the year 1906.*

	U. S. Army, 1898–1904.						American troops—Army, 1906.					
Mean strength	458,889 (Mean annual 65,556).						S. G. O., 56,443.—A. G. O., 58,572.					
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Admissions.		Discharges.		Deaths.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	7,877	17.17	42	0.09	883	1.90	347	6.15			15	0.26
Malarial fevers, total	173,735	378.60	176	.04	375	.80	6,077	107.67	2	0.03	9	.15
Intermittent	132,466	288.67	4	.01	9	.02	4,530	80.26			2	.03
Remittent or continued	34,058	74.22	5	.01	102	.22	1,456	25.79			1	.02
Pernicious	598	1.30	1	.002	220	.47	13	.23			5	.09
Other malarial diseases	6,613	14.41	166	.36	44	.09	78	1.38	2	.03	1	.02
Smallpox	500	1.10			107	.23	15	.27			1	.02
Measles	6,129	13.36	10	.02	95	.20	362	6.41				
Eruptive fevers, others	661	1.44			6	.01	88	1.56				
Diphtheria	162	.35			9	.02	17	.30				
Influenza	13,601	29.64			4	.01	948	16.80			1	.02
Asiatic cholera	511	1.11			206	.66	7	.12			3	.05
Cholera nostras	936	2.04					18	.32				
Dysentery	25,489	55.55	450	.97	921	1.98	817	14.47	27	.46	4	.07
Yellow fever	1,026	2.24			156	.34						
Leprosy	1	.002										
Beriberi	51	.11	6	.01	6	.01	2	.04				
Erysipelas	399	.87			10	.02	32	.57			2	.03
Dengue	13,352	29.10			1	.002	1,144	20.27				
Mumps	5,049	11.00					1,011	17.91				
Cerebro spinal fever, including meningitis	193	.42	20	.04	97	.21	5	.09	2	.03	2	.03
Purulent infection, including septicemia	92	.20	4	.01	52	.11	11	.19			4	.07
Tuberculosis, pulmonary	1,993	4.34	962	2.06	311	.67	254	4.50	175	2.99	37	.63
Total venereal	70,558	153.75	1,424	3.05	21	.05	10,749	190.44	179	3.06	5	.09
Syphilis and its results	9,674	21.08	1,020	2.21	18	.04	1,614	28.60	123	2.11	4	.07
Chancroid and its results	16,124	35.13	24	.05			2,100	37.21	2	.03		
Gonorrhea and its results	44,760	97.54	370	.79	3	.01	7,035	124.65	54	.92	1	.02
Cancer and other malignant growths	97	.21	22	.05	26	.06	16	.28	1	.02	9	.15
Rheumatism:												
Acute, articular	3,282	7.17	26	.06	7	.02	537	9.51				
Subacute and chronic, articular	3,211	7.00	311	.67	1	.002	366	6.48	28	.48		
Alcoholism and its results	10,243	22.32	52	.11	119	.26	1,762	31.22	13	.22	4	.07
Insanity	806	1.76	653	1.40	8	.02	84	1.49	72	1.23		
Diseases of the brain and spinal cord	1,888	4.11	387	.83	69	.15	48	.86	15	.25	2	.03
Tetanus	14	.03			11	.02	1	.02				
Diseases of the heart	2,878	6.27	708	1.52	184	.40	153	2.71	79	1.35	10	.17
Varicocele	1,958	4.27	67	.14			239	4.23	3	.05		
Other diseases of the veins	2,609	5.69	119	.26	27	.06	602	10.66	11	.19		

Adenitis, nonvenereal	2,771	6.04	9	.02			437	7.74				
Lymphangitis	422	.92	9	.02	1	.002	24	.42				
Coryza and other diseases of the nasal fossæ	4,505	9.82	28	.06			1,161	20.56	20	.34		
Bronchitis, acute and chronic	29,208	63.65	34	.07	4	.01	2,373	42.05	8	.14	1	.02
Pneumonia (all)	1,763	3.84	13	.03	258	.56	120	2.13	1	.02	16	.27
Pleurisy	1,682	3.67	58	.12	17	.04	190	3.37	1	.02	1	.02
Tonsillitis and other diseases of the pharynx	25,930	56.51			2	.004	3,490	61.83	1	.02		
Gastritis	12,014	26.18	46	.10	21	.05	746	13.22	6	.10	2	.03
Diarrhea and enteritis	105,463	229.82	130	.28	206	.44	4,903	86.87	6	.10	1	.02
Peritonitis (simple)	103	.22	4	.01	49	.11	7	.12	1	.02	4	.07
Inguinal and other herniæ	2,351	5.12	473	1.02	2	.004	343	6.08	58	.99		
Appendicitis	1,394	3.04	47	.10	71	.15	291	5.16	4	.07	10	.17
Acute and chronic nephritis	1,389	3.03	130	.28	153	.33	64	1.13	15	.26	7	.12
Periostitis	544	1.19	19	.04			46	.81	3	.05		
Arthritis and synovitis	3,627	7.90	151	.32			231	4.10	10	.17		

TABLE IIIa.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the army—officers and total enlisted—for the year 1906.*

	Officers, U. S. Army.						American troops, Army.							
Mean strength	S. G. O., 3,413.—A. G. O., 3,710.						S. G. O., 56,443.—A. G. O., 58,572.							
Causes of admission to sick report.	Admissions.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	13	3.81			2.15	0.63	347	6.15			15	0.26	50.38	0.89
Fevers, undetermined	19	5.57			.72	.21	442	7.83			1	.02	8.73	.15
Malarial fevers	212	62.12			4.55	1.33	6,077	107.67	2	0.03	9	.15	129.75	2.30
Nonmalignant infection	116	33.99			1.61	.48	3,710	65.73					72.70	1.29
Intermittent	113	33.11			1.59	.47	3,170	61.48					65.22	1.16
Remittent or continued	3	.88			.02	.007	240	4.25					7.48	.13
Malignant (estivo-autumnal) infection	86	25.20			2.73	.80	1,930	34.19			8	.14	45.10	.80
Intermittent	22	6.45			.47	.14	736	13.04			2	.03	14.14	.25
Remittent or continued	63	18.46			1.85	.54	1,181	20.92			1	.02	29.80	.53
Pernicious	1	.29			.42	.12	13	.23			5	.09	1.16	.02
Undetermined infection	8	2.34			.09	.02	359	6.36					5.53	.10
Intermittent	7	2.05			.08	.02	324	5.74					4.85	.09
Remittent or continued	1	.29			.01	.003	35	.62					.68	.01
Malarial cachexia	2	.59			.11	.03	75	1.33	2	.03			6.31	.11
Hemoglobinuric fever							3	.05			1	.02	.12	.002
Smallpox							15	.27			1	.02	1.67	.03
Measles	10	2.93			.36	.11	362	6.41					15.62	.28
Eruptive fevers, others	2	.59			.06	.02	88	1.56					3.31	.06
Diphtheria	2	.59			.10	.03	17	.30					1.49	.03
Influenza	85	24.90			1.26	.37	948	16.80			1	.02	19.29	.54
Asiatic cholera							7	.12			3	.05	.30	.01
Cholera nostras	2	.59			.02	.005	18	.32					.13	.002
Dysentery	57	16.71			7.10	2.08	817	14.47	27	.46	4	.07	85.75	1.52
Amebic	42	12.31			6.50	1.90	430	7.62	24	.41	1	.02	59.40	1.05
Bacillary	3	.88			22	.07	53	.94			2	.03	3.02	.05
Mixed infections and other dysenteries	12	3.52			.38	.11	331	5.92	3	.05	1	.02	23.33	.41
Yellow fever	1	.29			.03	.009								
Leprosy													1.00	.02
Beriberi							2	.04					.30	.01
Erysipelas	2	.59			.14	.04	32	.57			2	.03	1.72	.03
Dengue	53	15.53			1.35	.39	1,144	20.27					22.01	.39
Mumps	5	1.46			.18	.05	1,011	17.91					42.77	.76
Cerebro-spinal meningitis, epidemic	2	.59	1	0.27	.39	.11	1	.02			1	.02	.03	.001
Malta fever							4	.07					.56	.01
Other epidemic diseases							1,423	25.21					27.75	.49
Purulent infection and septicemia							11	.19			4	.07	1.51	.03

Tuberculosis, all	9	2.63			10.67	3.12	293	5.19	182	3.11	45	.77	162.95	2.88
Tuberculosis, pulmonary	8	2.34			10.53	3.08	254	4.50	175	2.99	37	.63	151.81	2.69
Tuberculosis of other organs	1	.29			.13	.04	39	.69	7	.12	8	.14	11.13	.20
Venereal diseases, all	30	8.79			1.93	.57	10,749	190.44	179	3.06	5	.09	738.68	13.09
Syphilis and its results	3	.88			.37	.11	1,614	28.60	123	2.11	4	.07	171.76	3.04
Chancroid and its results	2	.59			.30	.09	2,100	37.21	2	.03			136.23	2.41
Gonorrhea and its results	25	7.32			1.26	.37	7,035	124.65	54	.92	1	.02	430.68	7.63
Cancer and other malignant growths	3	.88	2	.54	.37	.11	16	.28	1	.02	9	.15	3.05	.05
Rheumatism, acute, articular	15	4.39			.44	.13	537	9.51					27.40	.49
Rheumatism, subacute and chronic, articular	7	2.05			.69	.20	366	6.48	28	.48			42.02	.74
Alcoholism and its results	19	5.57			.58	.17	1,762	31.22	13	.22	4	.07	22.56	.40
Insanity	2	.59			.07	.02	84	1.49	72	1.23			18.97	.33
Epilepsy	4	1.17			.40	.12	112	1.98	43	.73	1	.02	7.79	.14
Tetanus							1	.02					.01	.0002
Trachoma	2	.59			.01	.002	29	.51	8	.14			2.68	.05
Organic diseases of the heart	1	.29	1	.27	.09	.03	153	2.71	79	1.35	10	.17	14.16	.25
Aneurism					.10	.03	2	.04	1	.02	2	.03	.86	.01
Filariasis, lymphatic varix									1	.02			.27	.005
Functional diseases of the heart	7	2.05			.21	.06	156	2.76	20	.34			7.12	.13
Bronchitis, acute and chronic	117	34.28			2.10	.61	2,373	42.05	8	.14	1	.02	46.00	.81
Broncho-pneumonia	2	.59			.43	.13	14	.25			2	.03	.92	.02
Pneumonia (pneumonic fever)	7	2.05	4	1.08	.56	.16	106	1.88	1	.02	14	.24	9.50	.17
Diarrhea and enteritis	216	63.28			4.84	1.42	4,903	86.87	6	.10	1	.02	66.82	1.18
Intestinal parasites	3	.88			.11	.03	100	1.78					3.19	.07
Teniada	2	.59			.02	.007	54	.96					1.09	.03
Tenia mediocanellata (or saginata)	2	.59			.02	.007	33	.58					.53	.01
Tenia solium							19	.34					.29	.01
Tenia nana							2	.04					.27	.005
Ascarida	1	.29			.09	.03	28	.49					.62	.01
Ascaris lumbricoides	1	.29			.09	.03	24	.42					.59	.01
Oxyuris vermicularis							4	.07					.04	.001
Strongylida							14	.25					1.39	.03
Ankylostoma duodenale							10	.18					.97	.02
Uncinaria Americana							4	.07					.42	.01
Trichotrachelida							2	.04					.04	.001
Trichocephalus dispar							2	.04					.04	.001
Other intestinal parasites							2	.04					.05	.001
Inguinal and other herniæ	12	3.52			1.67	.49	343	6.08	58	.99			37.03	.65
Hepatic abscess	1	.29			.30	.09	11	.19	1	.02	4	.07	2.75	.05
Appendicitis	33	9.67			5.64	1.65	291	5.16	4	.07	10	.17	31.05	.55
Climatic bubo	2	.59			.05	.01	20	.35					1.39	.02
Tropical ulcer	4	1.17			.19	.05	54	.96					4.61	.08
Pemphigus contagiosus	3	.88			.04	.01	29	.51					.96	.02
Dhobie itch	4	1.17			.38	.11	382	6.77					9.41	.17
Tinea imbricata							4	.07					.51	.01
Prickly heat	2	.59			.04	.01	25	.44					.36	.01
Acute nephritis	1	.29			.08	.02	18	.32	1	.02	1	.02	2.01	.04
Chronic nephritis	3	.88	1	.27	.42	.12	46	.81	14	.24	6	.10	6.83	.12
Malingering							63	1.12					2.27	.04

TABLE IIIa.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the army—officers and total enlisted—for the year 1906*—Continued.

	Officers, U. S. Army.						American troops, Army.							
Mean strength	S. G. O., 3,413.—A. G. O., 3,710.						S. G. O., 56,443.—A. G. O., 58,572.							
Causes of admission to sick report.	Admissions.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
External causes, special.														
Fractures, exclusive of gunshot	23	6.74	1	0.27	3.40	1.00	595	10.55	39	0.67	13	0.22	82.47	1.46
Dislocations	6	1.76			.20	.06	165	2.92	4	.07			10.28	.18
Sprains and muscular strains	87	25.49			3.73	1.10	3,627	64.26	9	.15			80.70	1.43
Wounds, gunshot	11	3.22	4	1.08	2.04	.60	229	4.06	31	.53	65	1.11	30.56	.54
Wounds other than gunshot	39	11.43	1	.27	1.13	.33	2,953	52.32	18	.31	12	.21	79.89	1.42
Sunstroke	2	.59			.10	.03	11	.19	1	.02	2	.03	.30	.01
Frostbite and general freezing	1	.29			.003	.001	48	.85			2	.03	1.47	.03
Drowning			1	.27							38	.65		
Poisoning, acute	15	4.40			.14	.04	136	2.41			12	.21	1.77	.03
Venomous bites, etc							94	1.66					1.72	.03
Snake bites							3	.05					.03	.001
Other venomous bites, etc							91	1.61					1.69	.03
Diseases and injuries grouped.														
General diseases	539	157.93	3	.81	33.74	9.88	26,230	464.71	453	7.74	109	1.86	1,416.67	25.10
Epidemic diseases	449	131.56	1	.27	17.73	5.19	12,316	218.20	29	.50	36	.61	404.03	7.16
Other general diseases	90	26.37	2	.54	16.02	4.69	13,914	246.51	424	7.24	73	1.25	1,012.64	17.94
Diseases of the nervous system and organs of special sense	258	75.60	1	.27	21.58	6.32	2,825	50.05	407	6.94	6	.11	168.57	2.99
Of the nervous system	142	41.61	1	.27	16.30	4.77	1,114	19.74	166	2.83	5	.09	80.03	1.42
Of the eye and its adnexa	90	26.37			3.48	1.02	1,115	19.75	143	2.44			53.61	.95
Of the ear and its adnexa	26	7.62			1.80	.53	596	10.56	98	1.67	1	.02	34.93	.62
Diseases of the—														
Circulatory system	53	15.53	1	.27	2.79	.82	1,715	30.38	118	2.01	16	.27	98.48	1.74
Respiratory system	242	70.91	4	1.08	5.10	1.49	4,220	74.77	40	.68	18	.31	99.21	1.76
Digestive system	683	200.12			21.33	6.25	14,264	252.72	150	2.56	29	.50	305.62	5.41
Genito-urinary system	44	12.89	1	.27	4.48	1.31	902	15.98	39	.67	8	.14	45.41	.80
Skin and cellular tissue	111	32.52			4.41	1.29	5,674	100.53	12	.20			150.36	2.66
Organs of locomotion	95	27.83			5.26	1.54	2,316	41.03	50	.85			79.28	1.40
Malformations, etc							181	3.21	95	1.62			15.23	.27
Diseases, results of old age							3	.05	3	.05			.39	.01

Ill-defined diseases	41	12.01	....	....	3.98	1.16	1,109	19.65	7	.12	6	.10	30.99	.55
Total for disease	2,066	605.33	10	2.70	102.67	30.08	59,439	1,053.08	1,374	23.46	192	3.28	2,410.21	42.70
External causes	307	89.95	8	2.16	14.00	4.10	12,632	223.80	149	2.54	166	2.83	400.24	7.09
Total for disease and external causes.	2,373	695.28	18	4.85	116.66	34.18	72,071	1,276.88	1,523	26.00	358	6.11	2,810.45	49.79
Subclassification (repeated above):														
Suicide	....	....	5	....	....	....	....	....	....	....	39	....	....	....
Homicide	....	....	1	....	....	....	....	....	....	....	9	....	....	....
Killed in action	....	....	....	....	....	....	....	....	....	....	21	....	....	....
Died of wounds received in action	....	....	....	....	....	....	....	....	....	....	5	....	....	....

TABLE III (*b*).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the army—white enlisted and colored enlisted, for the year 1906.*

	American troops, white.								American troops, colored.							
Mean strength	S. G. O., 53,249—A. G. O., 55,223.								S. G. O., 3,194—A. G. O., 3,349.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	346	6.50			15	0.27	49.99	0.94	1	0.31					0.40	0.12
Fevers, undetermined	424	7.96			1	.02	8.46	.16	18	5.64					.27	.09
Malarial fevers	5,998	112.64	2	0.04	9	.16	128.01	2.40	79	24.73					1.76	.55
Nonmalignant infection	3,639	68.34					71.49	1.34	71	22.23					1.22	.39
Intermittent	3,401	63.87					44.02	1.20	69	21.60					1.20	.38
Remittent or continued	238	4.47					7.47	.14	2	.63					.02	.01
Malignant (estivo-autumnal) infection	1,928	36.20			8	.15	45.02	.84	2	.63					.08	.03
Intermittent	735	13.80			2	.04	14.08	.26	1	.31					.07	.02
Remittent or continued	1,180	22.16			1	.02	29.79	.56	1	.31					.02	.01
Pernicious	13	.24			5	.09	1.16	.02								
Undetermined infection	357	6.71					5.48	.10	2	.63					.05	.02
Intermittent	322	6.05					4.80	.09	2	.63					.05	.02
Remittent or continued	35	.66					.68	.01								
Malarial cachexia	72	1.35	2	.04			5.95	.11	3	.94					.36	.11
Hemoglobinuric fever	2	.04			1	.02	.07	.001	1	.31					.05	.01
Smallpox	9	.17			1	.02	.89	.02	6	1.88					.78	.24
Measles	361	6.78					15.57	.29	1	.31					.05	.02
Eruptive fevers, others	85	1.60					3.19	.06	3	.94					.12	.04
Diphtheria	17	.31					1.46	.03							.04	.01
Influenza	892	16.75			1	.02	18.31	.34	56	17.53					.98	.31
Asiatic cholera	7	.13			3	.05	.30	.01								
Cholera nostras	16	.30					.12	.002	2	.63					.01	.003
Dysentery	755	14.18	26	.47	4	.07	82.26	1.54	62	19.41	1	0.30			3.50	1.10
Amebic	396	7.44	23	.42	1	.02	57.04	1.07	34	10.64	1	.30			2.36	.74
Bacillary	51	.96			2	.04	2.73	.05	2	.63					.28	.09
Mixed infections and other dysenteries	308	5.78	3	.05	1	.02	22.48	.42	26	8.14					.85	.27
Leprosy							1.00	.02								
Beriberi	2	.04					.30	.01								
Erysipelas	30	.56			1	.02	1.66	.03	2	.63			1	0.30	.05	.02
Dengue	1,050	19.72					20.59	.39	94	29.43					1.42	.44
Mumps	975	18.31					41.33	.78	36	11.27					1.44	.45
Cerebro-spinal meningitis, epidemic	1	.02			1	.02	.03	.001								
Malta fever	4	.08					.56	.01								
Other epidemic diseases	1,409	26.46					27.19	.51	14	4.38					.56	.18
Purulent infection and septicemia	10	.19			3	.05	1.45	.03	1	.31			1	.30	.05	.02

Tuberculosis, all	265	4.98	168	3.04	38	0.69	146.67	2.75	28	8.77	14	4.18	7	2.09	16.27	5.09
Tuberculosis, pulmonary	230	4.32	162	2.93	31	.56	137.78	2.59	24	7.51	13	3.88	6	1.79	14.04	4.40
Tuberculosis of other organs	35	.67	6	.11	7	.13	8.90	.16	4	1.25	1	.30	1	.30	2.23	.69
Venereal diseases, all	10,162	190.84	174	3.15	4	.07	705.49	13.25	587	183.78	5	1.49	1	.30	33.19	10.39
Syphilis, and its results	1,534	28.80	120	2.18	3	.05	164.83	3.09	80	25.05	3	.90	1	.30	6.93	2.11
Chancroid, and its results	1,960	36.81	1	.02			126.29	2.37	140	43.84	1	.30			9.95	3.17
Gonorrhea, and its results	6,668	125.23	53	.97	1	.02	414.37	7.79	367	114.91	1	.30			16.32	5.12
Cancer and other malignant growths	16	.30	1	.02	9	.16	3.05	.06								
Rheumatism, acute articular	502	9.43					26.27	.49	35	10.96					1.13	.35
Rheumatism, subacute and chronic, articular	340	6.39	27	.49			40.13	.75	26	8.14	1	.30			1.89	.59
Alcoholism, and its results	1,737	32.62	11	.20	4	.07	22.29	.42	25	7.83	2	.60			.27	.08
Insanity	79	1.48	69	1.25			18.59	.35	5	1.57	3	.90			.38	.12
Epilepsy	109	2.05	43	.78	1	.02	7.75	.15	3	.94					.04	.01
Tetanus	1	.02					.01	.0002								
Trachoma	28	.53	8	.14			2.52	.05	1	.31					.16	.05
Organic diseases of the heart	149	2.80	77	1.39	9	.16	13.52	.25	4	1.25	2	.60	1	.30	.64	.20
Aneurism	2	.04	1	.02	2	.04	.86	.02								
Filariasis, lymphatic varix			1	.02			.27	.005								
Functional diseases of the heart	151	2.84	20	.36			6.92	.13	5	1.57					.20	.06
Bronchitis, acute and chronic	2,282	42.86	8	.14	1	.02	43.68	.82	91	28.49					2.32	.73
Broncho-pneumonia	13	.24			1	.02	.87	.02	1	.31			1	.30	.05	.02
Pneumonia (pneumonic fever)	95	1.78	1	.02	10	.18	8.89	.17	11	3.44			4	1.19	.61	.19
Diarrhea and enteritis	4,709	88.43	6	.11	1	.02	64.50	1.21	194	60.74					2.33	.73
Intestinal parasites	96	1.82					3.15	.07	4	1.25					.04	.01
Teniada	51	.96					1.05	.03	3	.94					.04	.01
Tenia mediocanellata (or saginata)	31	.58					.50	.01	2	.63					.02	.01
Tenia solium	18	.34					.28	.01	1	.31					.01	.003
Tenia nana	2	.04					.27	.01								
Ascarida	27	.51					.62	.01	1	.31					.01	.003
Ascaris lumbricoides	23	.43					.58	.01	1	.31					.01	.003
Oxyuris vermicularis	4	.08					.04	.001								
Strongylida	14	.27					1.39	.03								
Ankylostoma duodenale	10	.19					.97	.02								
Uncinaria Americana	4	.08					.42	.01								
Trichotrachelida	2	.04					.04	.001								
Trichocephalus dispar	2	.04					.04	.001								
Other intestinal parasites	2	.04					.05	.001								
Inguinal and other herniae	333	6.26	58	1.05			35.81	.67	10	3.13					1.22	.38
Hepatic abscess	11	.21	1	.02	4	.07	2.75	.05								
Appendicitis	277	5.20	4	.07	7	.13	30.33	.57	14	4.38			3	.90	.72	.22
Climatic bubo	19	.36					1.34	.03	1	.31					.06	.02
Tropical ulcer	44	.83					4.07	.08	10	3.13					.54	.17
Pemphigus, contagiosus	29	.54					.96	.02								
Dhobie itch	334	6.27					8.43	.16	48	15.03					.98	.31
Tenia imbricata	4	.08					.51	.01								
Prickly heat	23	.43					.32	.01	2	.63					.04	.01
Acute nephritis	15	.28	1	.02			1.91	.04	3	.94			1	.30	.10	.03
Chronic nephritis	42	.79	12	.22	6	.11	6.12	.11	4	1.25	2	.60			.72	.22
Malingering	60	1.13					2.23	.04	3	.94					.04	.01

TABLE III (*b*).—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the army—white enlisted and colored enlisted, for the year 1906*—Continued.

	American troops, white.								American troops, colored.							
Mean strength	S. G. O., 53,249—A. G. O., 55,223.								S. G. O., 3,194—A. G. O., 3,349.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
External causes, special.																
Fractures, exclusive of gunshot	568	10.66	39	0.70	11	0.20	78.44	1.47	27	8.46			2	0.60	4.03	1.26
Dislocations	157	2.95	4	.07			9.75	.18	8	2.50					.52	.16
Sprains and muscular strains	3,402	63.89	9	.16			77.06	1.45	225	70.45					3.64	1.14
Wounds, gunshot	204	3.83	30	.54	61	1.29	27.55	.52	25	7.83	1	0.30	4	1.19	3.01	.94
Wounds other than gunshot	2,775	52.11	17	.31	12	.21	76.33	1.44	178	55.73	1	.30			3.55	1.12
Sunstroke	11	.21	1	.02	2	.04	.30	.01								
Frostbite and general freezing	37	.69			1	.02	.99	.02	11	3.44			1	.30	.48	.15
Drowning					37	.67							1	.30		
Poisoning, acute	125	2.32			11	.20	1.69	.03	11	3.45			1	.30	.08	.03
Venomous bites, etc	87	1.64					1.53	.03	7	2.19					.19	.06
Snake bite	3	.06					.03	.001								
Other venomous bites, etc	84	1.58					1.50	.03	7	2.19					.19	.06
Diseases and injuries grouped.																
General diseases	25,158	472.45	429	7.77	99	1.79	1,351.64	25.38	1,072	335.63	24	7.17	10	2.99	65.03	20.36
Epidemic diseases	11,960	224.60	28	.51	35	.63	392.94	7.38	356	111.46	1	.30	1	.30	11.09	3.47
Other general diseases	13,198	247.85	401	7.26	64	1.16	958.70	18.00	716	224.17	23	6.87	9	2.69	53.94	16.89
Diseases of the nervous system and organs of special sense	2,664	50.03	400	7.24	6	.11	162.48	3.05	161	50.40	7	2.09			6.08	1.82
Of the nervous system	1,042	19.57	161	2.92	5	.09	77.47	1.45	72	22.54	5	1.49			2.56	.80
Of the eye and its adnexa	1,034	19.42	141	2.55			50.40	.95	81	25.36	2	.60			3.20	.92
Of the ear and its adnexa	588	11.04	98	1.77	1	.02	34.61	.65	8	2.50					.33	.10
Diseases of the—																
Circulatory system	1,607	30.18	114	2.06	14	.25	93.34	1.75	108	33.81	4	1.19	2	.60	5.14	1.61
Respiratory system	4,040	75.88	40	.72	13	.23	93.80	1.76	180	56.36			5	1.49	5.42	1.70
Digestive system	13,599	255.40	150	2.72	26	.47	295.16	5.54	665	208.20			3	.90	10.46	3.27
Genito-urinary system	842	15.81	36	.65	7	.13	42.05	.79	60	18.79	3	.90	1	.30	3.37	1.05
Skin and cellular tissue	5,346	100.40	12	.22			142.09	2.67	328	102.69					8.27	2.59
Organs of locomotion	2,124	39.89	50	.90			75.01	1.41	192	60.11					4.26	1.33
Malformations, etc	176	3.31	93	1.68			14.85	.28	5	1.57	2	.60			.38	.12

Diseases, results of old age	3	.06	3	.05			.39	.01								
Ill-defined diseases	1,052	19.76	7	.13	6	.11	29.74	.56	57	17.85					1.25	.39
Total for disease	56,611	1,063.14	1,334	24.16	171	3.10	2,300.55	43.20	2,828	885.41	40	11.94	21	6.27	109.67	34.33
External causes	11,881	223.12	146	2.64	156	2.82	379.49	7.13	751	235.13	3	.90	10	2.99	20.75	6.50
Total for disease and external causes	68,492	1,286.26	1,480	26.80	327	5.92	2,680.04	50.33	3,579	1,120.54	43	12.84	31	9.26	130.42	40.83
Subclassification (repeated above):																
Suicide					37								2			
Homicide					6								3			
Killed in action					21											
Died of wounds received in action					4								1			

TABLE IV.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906, United States, continental (excluding Alaska).*

Causes of admission to sick report.	United States, continental (excluding Alaska), total.								United States, continental (excluding Alaska), white.								United States, continental (excluding Alaska), colored.							
Mean strength	S. G. O., 40,621.—A. G. O., 42,239.								S. G. O., 38,140.—A. G. O., 39,711.								S. G. O., 2,481.—A. G. O., 2,528.							
	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	230	5.66			12	0.28	35.79	0.88	229	6.00			12	0.30	35.39	0.93	1	0.40					0.40	0.16
Fevers, undetermined	314	7.73					5.68	.14	305	8.00					5.53	.15	9	3.65					.15	.06
Malarial fevers	2,042	50.27	2	0.05	1	.02	45.58	1.12	1,991	52.20	2	0.05	1	.03	44.21	1.16	51	20.56					1.37	.55
Nonmalignant infection	1,816	44.71					36.76	.90	1,772	46.46					35.90	.94	44	17.73					.86	.35
Intermittent	1,765	43.45					33.77	.83	1,721	45.12					32.91	.86	44	17.73					.86	.35
Remittent or continued	51	1.26					2.99	.07	51	1.34					2.99	.08								
Malignant (estivo-autumnal) infection	69	1.70			1	.02	3.31	.08	67	1.76			1	.03	3.22	.09	2	.81					.09	.04
Intermittent	49	1.21					2.23	.05	48	1.26					2.16	.06	1	.40					.07	.03
Remittent or continued	17	.42					.74	.02	16	.42					.72	.02	1	.40					.02	.01
Pernicious	3	.07			1	.02	.34	.01	3	.08			1	.03	.34	.01								
Undetermined infection	112	2.76					1.98	.05	111	2.91					1.97	.05	1	.40					.01	.01
Intermittent	102	2.66					1.91	.05	107	2.81					1.90	.05	1	.40					.01	.01
Remittent or continued	4	.10					.07	.001	4	.10					.07	.002								
Malarial cachexia	44	1.08	2	.05			3.47	.09	41	1.07	2	.05			3.11	.08	3	1.21					.36	.15
Hemoglobinuric fever	1	.02					.05	.001									1	.40					.05	.02
Smallpox	12	.30					1.46	.04	6	.16					.68	.02	6	2.42					.78	.31
Measles	258	6.35					11.62	.29	257	6.74					11.57	.30	1	.40					.05	.02
Eruptive fevers, others	85	2.09					3.27	.08	82	2.15					3.16	.08	3	1.21					.12	.05
Diphtheria	17	.42					1.49	.04	17	.45					1.45	.04							.04	.01
Influenza	932	22.94			1	.02	19.05	.47	878	23.02			1	.03	18.09	.47	54	21.77					.96	.39
Cholera nostras	18	.44					.13	.003	16	.42					.12	.003	2	.81					.01	.003
Dysentery	242	5.96	20	.47			38.84	.96	234	6.14	19	.48			37.67	.99	8	3.22	1	0.40			1.17	.47
Amebic	135	3.32	19	.45			28.39	.70	128	3.36	18	.45			27.26	.71	7	2.82	1	.40			1.13	.45
Bacillary	7	.17					.31	.01	7	.18					.31	.01								
Mixed infections and other dysenteries	100	2.46	1	.02			10.11	.25	99	2.60	1	.03			10.07	.26	1	.40					.04	.02
Leprosy							1.00	.02							1.00	.03								
Erysipelas	29	.71			1	.02	1.62	.04	27	.71					1.57	.04	2	.81			1	0.40	.05	.02
Dengue	28	.69					.88	.02	28	.73					.88	.02								
Mumps	850	20.93					34.87	.86	826	21.66					31.12	.89	24	9.67					.75	.30
Cerebro-spinal meningitis, epidemic	1	.02			1	.02	.01	.0003	1	.03			1	.03	.01	.0003								

Other epidemic diseases	1,355	33.35					26.89	.66	1,314	35.21					26.41	.69	11	4.43					.48	.19
Purulent infection and septicemia	7	.17			2	.05	.87	.02	7	.18			2	.05	.87	.02								
Tuberculosis (all)	212	5.22	149	3.53	33	.78	149.42	3.68	189	4.96	135	3.40	26	.65	134.17	3.52	23	9.27	14	5.54	7	2.77	15.25	6.15
Tuberculosis, pulmonary	183	4.51	143	3.39	27	.64	139.78	3.44	165	4.27	130	3.27	21	.53	126.36	3.31	20	8.06	13	5.14	6	2.37	13.42	5.41
Tuberculosis of other organs	29	.71	6	.14	6	.14	9.64	.23	26	.67	5	.13	5	.13	7.81	.21	3	1.21	1	.40	1	.40	1.83	.73
Venereal diseases	6,455	158.91	165	3.91	3	.07	442.91	10.90	6,082	159.47	160	4.05	2	.05	419.70	11.00	373	150.34	5	1.98	1	.40	23.21	9.36
Syphilis and its results	1,108	27.28	118	2.79	2	.05	121.00	2.98	1,043	27.34	115	2.90	1	.03	115.06	3.02	65	26.20	3	1.19	1	.40	5.94	2.40
Chancroid and its results	1,073	26.41	2	.05			70.50	1.73	992	26.01	1	.03			64.34	1.69	81	32.65	1	.40			6.16	2.48
Gonorrhea and its results	4,274	105.21	45	1.07	1	.02	251.40	6.18	4,047	106.11	44	1.11	1	.03	240.29	6.29	227	91.49	1	.40			11.11	4.48
Cancer and other malignant growths	15	.37	1	.02	7	.17	2.78	.08	15	.39	1	.03	7	.18	2.78	.08								
Rheumatism, acute, articular	438	10.78					23.43	.58	412	10.80					22.51	.59	26	10.48					.92	.37
Rheumatism, subacute and chronic, articular	293	7.21	26	.62			32.46	.80	269	7.05	25	.63			30.88	.81	24	9.67	1	.40			1.58	.64
Alcoholism and its results	1,311	32.27	13	.31	1	.02	17.00	.42	1,291	33.85	11	.28	1	.03	16.77	.44	20	8.06	2	.79			.23	.09
Insanity	54	1.33	53	1.25			13.58	.33	49	1.28	50	1.26			13.20	.35	5	2.02	3	1.19			.38	.15
Epilepsy	106	2.61	41	.97	1	.02	7.16	.18	103	2.70	41	1.03	1	.03	7.12	.19	3	1.21					.04	.01
Tetanus	1	.02					.01	.0003	1	.03					.01	.0003								
Trachoma	23	.57	8	.19			2.24	.06	22	.58	8	.20			2.08	.05	1	.40					.16	.07
Organic diseases of the heart	122	3.00	71	1.68	7	.17	9.71	.24	120	3.15	70	1.76	6	.15	9.24	.24	2	.81	1	.40	1	.40	.47	.19
Aneurism	1	.02	1	.02	1	.02	.76	.02	1	.03	1	.03	1	.03	.76	.02								
Lymphatic varix							.27	.01							.27	.01								
Functional diseases of the heart	113	2.78	19	.45			4.52	.11	112	2.94	19	.48			4.50	.12	1	.40					.02	.01
Bronchitis, acute and chronic	1,951	48.03	8	.19	1	.02	38.41	.95	1,896	49.71	8	.20	1	.03	36.48	.95	55	22.17					1.93	.78
Broncho-pneumonia	10	.25			1	.02	.72	.02	10	.26			1	.03	.72	.02								
Pneumonia (pneumonic fever)	95	2.34	1	.02	10	.24	8.71	.21	84	2.20	1	.03	6	.15	8.10	.21	11	4.43			4	1.58	.61	.25
Diarrhea and enteritis	2,993	73.68	5	.12			35.17	.87	2,882	75.56	5	.13			34.10	.89	111	44.74					1.07	.43
Intestinal parasites	51	1.24					1.49	.04	47	1.24					1.44	.04	4	1.61					.05	.01
Tæniada	40	.98					.82	.02	37	.97					.78	.02	3	1.21					.04	.01
Tænia mediocanellata (or saginata)	28	.69					.46	.01	26	.68					.43	.01	2	.81					.03	.01
Tænia solium	11	.27					.17	.004	10	.26					.16	.004	1	.40					.01	.004
Tænia nana	1	.02					.19	.005	1	.03					.19	.005								
Ascaridæ	7	.17					.18	.005	6	.16					.17	.005	1	.40					.01	.003
Ascaris lumbricoides	6	.15					.10	.003	5	.13					.09	.003	1	.40					.01	.003
Oxyuris vermicularis	1	.02					.08	.002	1	.03					.08	.002								
Strongylida	3	.07					.44	.01	3	.08					.44	.01								
Ankylostoma duodenale	2	.05					.36	.01	2	.05					.36	.01								
Uncinaria Americana	1	.02					.08	.002	1	.03					.08	.002								
Other intestinal parasites	1	.02					.05	.001	1	.03					.05	.001								
Inguinal and other herniæ	265	6.53	56	1.33			28.09	.69	257	6.74	56	1.41			27.08	.71	8	3.22					1.01	.41
Hepatic abscess	7	.17	1	.02	2	.05	2.16	.05	7	.18	1	.03	2	.05	2.16	.07								
Appendicitis	215	5.29	4	.09	9	.21	24.74	.61	205	5.37	4	.10	6	.15	24.31	.64	10	4.03			3	1.19	.43	.17
Climatic bubo							.05	.001							.05	.001								
Tropical ulcer	8	.20					1.45	.04	8	.21					1.45	.04								

TABLE IV.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906, United States, continental (excluding Alaska)*— Continued.

	United States, continental (excluding Alaska), total.								United States, continental (excluding Alaska), white.								United States, continental (excluding Alaska), colored.							
Mean strength	S. G. O., 40,621.—A. G. O., 42,239.								S. G. O., 38,140.—A. G. O., 39,711.								S. G. O., 2,481.- A. G. O., 2,528.							
Causes of admission to sick report.	Admissions.		Dis-charges.		Deaths.		Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Pemphigus, contagiosus	2	.05					0.12	0.005	2	0.05					0.12	0.003								
Dhobie itch	38	.94					1.13	.03	38	1.00					1.13	.03								
Tenia imbricata	3	.07					.49	.01	3	.08					.49	.01								
Prickly heat	9	.22					.18	.005	9	.24					.18	.005								
Acute nephritis	16	.39	1	0.02	1	0.02	1.99	.05	13	.34	1	0.03			1.89	.05	3	1.21			1	0.40	0.10	0.04
Chronic nephritis	42	1.03	14	.33	4	.09	5.37	.13	38	1.00	12	.30	4	0.10	4.91	.13	4	1.61	2	0.79			.46	.18
Malingering	47	1.16					1.89	.05	47	1.23					1.89	.05								
EXTERNAL CAUSES, SPECIAL.																								
Fractures, exclusive of gunshot	454	11.17	32	.75	12	.28	64.81	1.60	429	11.24	32	.80	10	.26	60.94	1.60	25	10.07			2	.80	3.87	1.56
Dislocations	132	3.25	3	.07			8.72	.21	124	3.25	3	.08			8.20	.21	8	3.22					.52	.21
Sprains and muscular strains	2,895	71.26	6	.14			65.15	1.60	2,717	71.23	6	.15			61.97	1.62	178	71.75					3.18	1.29
Wounds, gunshot	135	3.32	15	.36	34	.80	18.47	.45	114	2.99	15	.38	30	.76	16.59	.44	21	8.46			4	1.58	1.88	.76
Wounds other than gunshot.	2,186	53.81	12	.28	2	.05	57.83	1.42	2,081	54.56	11	.28	2	.05	55.42	1.46	105	42.32	1	.40			2.41	.97
Sunstroke	3	.07			2	.05	.07	.002	3	.08			2	.05	.07	.002								
Frostbite and general freezing	38	.94			2	.05	1.14	.03	27	.71			1	.03	.66	.02	11	4.43			1	.40	.48	.20
Drowning					22	.52							22	.55										
Poisoning, acute	100	2.46			10	.23	1.36	.03	97	2.54			9	.23	1.32	.03	3	1.21			1	.40	.04	.02
Venomous bites, etc	42	1.03					.84	.02	41	1.07					.83	.02	1	.40					.01	.003
Snake bite	2	.05					.03	.001	2	.05					.03	.001								
Other venomous bites, etc.	40	.98					.81	.02	39	1.02					.80	.02	1	.40					.01	.003
DISEASES AND INJURIES GROUPED.																								
General diseases	14,960	368.28	395	9.35	65	1.54	901.40	22.19	14,323	375.54	371	9.34	56	1.41	853.45	22.37	637	256.75	24	9.50	9	3.56	47.95	19.32
Epidemic diseases	6,099	150.14	22	.52	16	.38	222.50	5.48	5,936	155.64	21	.53	15	.38	216.34	5.67	163	65.70	1	.40	1	.40	6.16	2.48
Other general diseases	8,861	218.14	373	8.83	49	1.16	678.86	16.71	8,387	219.90	350	8.81	41	1.03	637.07	16.70	474	191.05	23	9.10	8	3.16	41.79	16.84

Diseases of the nervous system and organs of special sense	2,047	50.39	368	8.71	4	.09	126.60	3.12	1,931	50.62	361	9.09	4	.11	121.56	3.19	116	46.76	7	2.77	....	.....	5.04	2.03
Of the nervous system	791	19.47	137	3.24	3	.07	60.02	1.48	740	19.40	132	3.32	3	.08	57.76	1.51	51	20.56	5	1.98	....	.....	2.26	.91
Of the eye and its adnexa	867	21.34	141	3.34	....	.....	42.09	1.04	806	21.13	139	3.50	....	.....	39.59	1.04	61	24.59	2	.79	....	.....	2.50	1.01
Of the ear and its adnexa	389	9.58	90	2.13	1	.02	24.50	.60	385	10.09	90	2.27	1	.03	24.22	.64	4	1.61	....	.....	....	.....	.28	.11
Diseases of the—																								
Circulatory system	1,137	27.99	108	2.56	11	.26	64.66	1.59	1,072	28.11	105	2.64	10	.25	61.37	1.61	65	26.20	3	1.19	1	.40	3.29	1.32
Respiratory system	3,482	85.72	38	.90	13	.31	81.32	2.00	3,356	87.99	38	.96	9	.23	77.63	2.04	126	50.79	....	.....	4	1.58	3.69	1.49
Digestive system	10,082	248.20	143	3.39	18	.43	210.71	5.19	9,676	253.70	143	3.60	15	.38	203.89	5.35	406	163.64	....	.....	3	1.19	6.82	2.75
Genito-urinary system	638	15.71	37	.88	6	.14	32.52	.80	595	15.60	34	.86	5	.13	29.94	.78	43	17.33	3	1.19	1	.40	2.58	1.04
Skin and cellular tissue	3,355	82.59	12	.28	....	.....	91.93	2.26	3,238	84.90	12	.30	....	.....	88.64	2.32	117	47.16	....	.....	....	.....	3.29	1.33
Organs of locomotion	1,736	42.74	47	1.11	....	.....	59.54	1.47	1,621	42.50	47	1.18	....	.....	56.79	1.49	115	46.35	....	.....	....	.....	2.75	1.11
Malformations, etc	155	3.82	94	2.23	....	.....	11.82	.29	151	3.96	92	2.32	....	.....	11.67	.31	4	1.61	2	.79	....	.....	.15	.06
Diseases, results of old age	3	.07	2	.05	....	.....	.39	.01	3	.08	2	.05	....	.....	.39	.01	....	.....	....	.....	....	.....	.....	.....
Ill-defined diseases	751	18.49	7	.17	3	.07	20.50	.50	721	18.90	7	.18	3	.08	19.88	.52	30	12.09	....	.....	....	.....	.62	.25
Total for disease	38,346	943.99	1,251	29.62	120	2.84	1,001.36	39.40	36,687	961.90	1,212	30.52	102	2.57	1,525.19	39.99	1,659	668.68	39	15.43	18	7.12	76.17	30.70
External causes	9,584	235.94	113	2.68	103	2.44	304.76	7.50	9,049	237.26	111	2.80	94	2.37	288.26	7.56	535	215.64	2	.79	9	3.56	16.50	6.65
Total for disease and external causes	47,930	1,179.93	1,364	32.29	223	5.28	1,906.12	46.92	45,736	1,199.16	1,323	33.32	196	4.94	1,813.45	47.55	2,194	884.32	41	16.22	27	10.68	92.67	37.35
Subclassification (repeated above):																								
Suicide	......	....	......	......	27	.....	....	......	......	....	......	......	26	.....	....	......	......	....	......	......	1	.....	......	......
Homicide	......	....	......	......	6	.....	....	......	......	....	......	......	3	.....	....	......	......	....	......	......	3	.....	......	......

TABLE V.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906—Alaska, Cuba, and Hawaii.*

	Alaska.								Cuba.								Hawaii.							
Mean strength	S. G. O., 805.—A. G. O., 929.								S. G. O., 1,123.—A. G. O., 1,252.								S. G. O., 232.—A. G. O., 248.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	1	1.24			1	1.08	0.32	0.39	65	57.88			2	1.60	6.15	5.48	1	4.31					0.15	0.66
Fevers, undetermined	2	2.48					.01	.01	9	8.01			1	.80	.38	.34								
Malarial fevers	1	1.24					.02	.02	81	72.13					2.02	1.80	2	8.62					.05	.22
Nonmalignant infection	1	1.24					.02	.02	71	63.22					1.61	1.43	1	4.31					.05	.21
Intermittent	1	1.24					.02	.02	67	59.66					1.46	1.30	1	4.31					.05	.21
Remittent or continued									4	3.56					.15	.13								
Malignant (estivo-autumnal) infection									10	8.90					.41	.36								
Intermittent									2	1.78					.07	.06								
Remittent or continued									8	7.12					.34	.30								
Undetermined infection																	1	4.31					.003	.01
Intermittent																	1	4.31					.003	.01
Measles	14	17.39					.56	.70	9	8.01					.39	.34								
Influenza																	1	4.31					.01	.04
Dysentery	3	3.73					.10	.12	11	9.80					.47	.42	3	12.93					.29	1.26
Amebic	1	1.24					.02	.02	1	.89					.03	.03	2	8.62					.17	.73
Bacillary	1	1.24					.06	.08																
Mixed infections and other dysenteries	1	1.24					.02	.02	10	8.90					.44	.39	1	4.31					.12	.53
Dengue									1	.89					.02	.02	3	12.93					.08	.33
Mumps	1	1.24					.02	.03																
Other epidemic diseases									41	36.51					.53	.47								
Tuberculosis, all	4	4.97	1	1.08			.88	1.10	3	2.67					.13	.11	1	4.31	1	4.03			.48	2.09
Tuberculosis, pulmonary	4	4.97	1	1.08			.88	1.10	2	1.78					.11	.10	1	4.31	1	4.03			.48	2.09
Tuberculosis of other organs									1	.89					.02	.01								
Venereal diseases, all	53	65.84					2.61	3.24	185	164.74					8.06	7.18	52	224.14	3	12.10	1	4.03	4.18	18.02
Syphilis and its results	8	9.93					.62	.77	19	16.92					1.03	.91	5	21.55	3	12.10	1	4.03	1.25	5.37
Chancroid and its results	6	7.45					.15	.19	51	45.42					2.43	2.17	5	21.55					.45	1.95
Gonorrhea and its results	39	48.44					1.84	2.29	115	102.40					4.60	4.10	42	181.03					2.48	10.70
Rheumatism, acute, articular	11	13.66					.49	.61	6	5.34					.12	.11	1	4.31					.02	.11

Rheumatism, subacute and chronic, articular	4	4.97					.08	.10	1	.89					.03	.03								
Alcoholism and its results	22	27.33			1	1.08	.24	.30	36	32.06					.33	.29	11	47.41					.12	.52
Insanity									3	2.67	2	1.60			.12	.10	2	8.62					.29	1.26
Trachoma									1	89					.003	.002								
Organic diseases of the heart	2	2.48	1	1.08	1	1.08	.75	.93									2	8.62					.19	.80
Aneurism	1	1.24					.10	.12																
Functional diseases of the heart	4	4.97					.12	.15	2	1.78					.10	.09								
Bronchitis, acute and chronic	39	48.44					.61	.75	6	5.34					.05	.05	3	12.93					.10	.45
Pneumonia (pneumonic fever)																	1	4.31					.06	.27
Diarrhea and enteritis	19	23.60					.50	.62	238	211.93					2.54	2.26	7	30.17					.09	.38
Intestinal parasites									2	1.78					.01	.01								
Teniada									2	1.78					.01	.01								
Tenia mediocanellata (or saginata)									1	.89					.01	.01								
Tenia solium									1	.89					.01	.004								
Inguinal and other herniæ	2	2.48					.12	.15	5	4.45					.44	.39								
Appendicitis	3	3 73					.12	.15	3	2.67					.05	.04	1	4.31					.18	.79
Dhobie itch									1	.89					.03	.03								
External causes, special.																								
Fractures, exclusive of gunshot	5	6.21					.41	.51	15	13.36					.96	.86	2	8.62					.36	1.54
Dislocations	4	4.97					.11	.13	3	2.67					.09	.08								
Sprains and muscular strains	35	43.48					1.00	1.24	58	51.64					.85	.76	9	38.79					.26	1.12
Wounds, gunshot					1	1 08			3	2.67					.23	.20	4	17.24					.38	1.65
Wounds other than gunshot	36	44.73					1.15	1.43	74	65.89					1.48	1.32	10	43.10					.18	.75
Frostbite and general freezing	10	12.42					.33	.42																
Drowning					1	1 08																		
Poisoning, acute	1	1.24					.003	.003	1	.89					.01	.004								
Venomous bites, etc	1	1 24					.04	.05	4	3.56					.04	.03								
Diseases and injuries grouped.																								
General diseases	117	145.34	1	1 08	3	3.23	5 66	7.03	441	392.70			2	1.60	18 34	16 33	76	327.58	4	16.13	1	4 03	5.41	23 33
Epidemic diseases	20	24.84			1	1.08	1.01	1.26	208	185.22			2	1.60	9 58	8.53	10	43 10					.58	2 52
Other general diseases	97	120.50	1	1 08	2	2.15	4 65	5.77	233	207.48					8 76	7.80	66	284.48	4	16 13	1	4 03	4 83	20 81
Diseases of the nervous system and organs of special sense	34	42 23	2	2.16			2.10	2 60	28	24.93	2	1.60			.79	.71	8	34.48					.61	2.62
Of the nervous system	15	18 63	1	1.08			1.46	1.81	8	7.12	2	1.60			.22	.20	3	12.93					.41	1.76
Of the eye and its adnexa	15	18.63					.44	.54	12	10.69					.31	.28	2	8.62					.10	.45
Of the ear and its adnexa	4	4.97	1	1.08			.20	.25	8	7.12					.26	.23	3	12 93					.10	.41

TABLE V.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906—Alaska, Cuba, and Hawaii*—Continued.

	Alaska.								Cuba.								Hawaii.							
Mean strength	S. G. O., 805.—A. G. O., 929.								S. G. O., 1,123.—A. G. O., 1,252.								S. G. O., 232.—A. G. O., 248.							
	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases and injuries grouped—Continued.																								
Diseases of the—																								
Circulatory system	18	22.36	1	1.08	1	1.08	1.58	1.97	25	22.26					0.77	0.69	12	51.72					0.87	3.73
Respiratory system	69	85.71					1.10	1.37	19	16.92					.34	.30	10	43.10					.24	1.04
Digestive system	103	127.95					1.99	2.47	376	334.82	1	0.80			4.80	4.27	44	189.66			1	4.03	1.10	4.75
Genito-urinary system	6	7.45	1	1.08			.42	.52	11	9.80	1	.80			.24	.21	2	8.62					.21	.92
Skin and cellular tissue	35	43.48					.86	1.07	94	83.70					2.21	1.97	20	86.21					.96	4.15
Organs of locomotion	54	67.08					1.80	2.24	41	36.51					.72	.64	8	34.48					.22	.94
Malformations, etc	1	1.24					.07	.09	1	.89					.08	.08	1	4.31	1	4.03			.24	1.04
Ill-defined diseases	5	6.21					.08	.10	24	21.37			1	.80	.92	.82							.05	.24
Total for disease	442	549.07	5	5.38	4	4.31	15.67	19.46	1,060	943.90	4	3.19	3	2.40	29.22	26.01	181	780.17	5	20.16	2	8.06	9.92	42.75
External causes	133	165.22			2	2.15	3.55	4.41	250	222.62					5.34	4.76	53	228.45					1.66	7.18
Total for disease and external causes	575	714.29	5	5.38	6	6.46	19.22	23.87	1,310	1,166.52	4	3.19	3	2.40	34.56	30.77	234	1,008.62	5	20.16	2	8.06	11.58	49.93
Subclassification (repeated above): Suicide					1																			

TABLE VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906—Philippine Islands.*

	Philippine Islands, total.								Philippine Islands, white.								Philippine Islands, colored.							
Mean strength	S. G. O. 12,380.—A. G. O. 12,622.								S. G. O. 11,751.—A. G. O. 11,885.								S. G. O. 629.—A. G. O. 737.							
Causes of admission to sick report.	Admissions.		Dis-charges.		Deaths.		Noneffective.		Admissions.		Dis-charges.		Deaths.		Noneffective.		Admissions.		Dis-charges.		Deaths.		Non-effective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	48	3.88					7.92	0.64	48	4.08					7.92	0.67								
Fevers, undetermined	111	8.97					2.57	.21	102	8.68					2.45	.21	9	14.31					0.12	0.20
Malarial fevers	3,766	304.20			7	0.55	79.12	6.39	3,738	318.10			7	0.59	78.72	6.70	28	44.52					.39	.62
Nonmalignant infection	1,749	141.27					33.39	2.70	1,722	146.54					33.03	2.81	27	42.93					.35	.57
Intermittent	1,564	126.33					29.05	2.35	1,539	130.97					28.71	2.44	25	39.75					.34	.54
Remittent or continued	185	14.94					4.34	.35	183	15.57					4.32	.37	2	3.18					.02	.03
Malignant (estivo autumnal) infection	1,796	145.08			6	.48	40.56	3.28	1,796	152.84			6	.50	40.56	3.46								
Intermittent	665	53.72			2	.16	11.46	.93	665	56.59			2	.17	11.46	.98								
Remittent or continued	1,121	90.55			1	.08	28.31	2.29	1,121	95.40			1	.08	28.31	2.41								
Pernicious	10	.81			3	.24	.79	.06	10	.85			3	.25	.79	.07								
Undetermined infection	189	15.27					2.80	.23	188	16.00					2.76	.23	1	1.59					.04	.06
Intermittent	165	13.33					2.30	.19	164	13.96					2.26	.19	1	1.59					.04	.06
Remittent or continued	24	1.94					.50	.04	24	2.04					.50	.04								
Malarial cachexia	30	2.42					2.29	.18	30	2.55					2.29	.19								
Hemoglobinuric fever	2	.16			1	.08	.07	.01	2	.17			1	.08	.07	.01								
Smallpox	3	.24			1	.08	.21	.02	3	.26			1	.08	.21	.02								
Measles	62	5.01					2.63	.21	62	5.28					2.63	.22								
Eruptive fevers, others	3	.24					.04	.003	3	.26					.04	.003								
Influenza	13	1.05					.21	.02	13	1.11					.21	.02								
Asiatic cholera	7	.57			3	.24	.30	.02	7	.60			3	.25	.30	.03								
Dysentery	543	43.86	7	0.55	4	.32	39.92	3.22	489	41.61	7	0.59	4	.34	37.59	3.20	54	85.86					2.33	3.70
Amebic	287	23.18	5	.40	1	.08	25.95	2.10	260	22.13	5	.42	1	.08	24.71	2.10	27	42.93					1.24	1.96
Bacillary	44	3.55			2	.16	2.54	.20	42	3.57			2	.17	2.25	.19	2	3.18					.28	.45
Mixed infections and other dysenteries	212	17.12	2	.16	1	.08	11.44	.92	187	15.91	2	.17	1	.08	10.63	.90	25	39.75					.81	1.28
Beriberi	1	.08					.19	.02	1	.09					.19	.02								
Erysipelas	3	.24			1	.08	.09	.01	3	.26			1	.08	.09	.01								
Dengue	1,099	88.77					20.97	1.69	1,005	85.52					19.55	1.66	94	149.44					1.42	2.26
Mumps	63	5.09					5.23	.42	52	4.43					4.57	.39	11	17.49					.66	1.05
Malta fever	4	.32					.56	.05	4	.34					.56	.05								
Other epidemic diseases	26	2.10					.40	.03	23	1.96					.32	.03	3	4.77					.08	.14

TABLE VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 mean strength, for the year 1906—Philippine Islands*—Continued.

	Philippine Islands, total.								Philippine Islands, white.								Philippine Islands, colored.							
Mean strength	S. G. O. 12,380—A. G. O. 12,622.								S. G. O. 11,751—A. G. O. 11,885.								S. G. O. 629—A. G. O. 737.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Purulent infection and septicemia	4	0.32			2	0.16	0.64	0.05	3	0.26			1	0.08	0.58	0.05	1	1.59			1	1.36	0.05	0.09
Tuberculosis, all	68	5.49	29	2.30	10	.79	6.19	.50	63	5.36	29	2.44	10	.84	5.60	.48	5	7.95					.59	.94
Tuberculosis, pulmonary	59	4.77	28	2.22	8	.63	4.97	.40	55	4.68	28	2.36	8	.67	4.70	.40	4	6.36					.27	.43
Tuberculosis of other organs	9	.72	1	.08	2	.16	1.22	.11	8	.68	1	.08	2	.17	.90	.08	1	1.59					.32	.51
Venereal diseases, all	3,842	310.34	11	.87	1	.08	272.90	22.04	3,633	309.17	11	.93	1	.08	263.05	22.39	209	322.27					9.84	15.65
Syphilis and its results	451	36.43	2	.16	1	.08	45.78	3.70	436	37.10	2	.17	1	.08	44.79	3.81	15	23.85					.99	1.58
Chancroid and its results	942	76.09					61.48	4.96	883	75.14					57.70	4.91	59	93.80					3.78	6.01
Gonorrhea and its results	2,449	197.82	9	.71			165.64	13.37	2,314	196.92	9	.76			160.57	13.65	135	214.63					5.07	8.07
Cancer and other malignant growths	1	.08			2	.16	.20	.02	1	.09			2	.17	.20	.02								
Rheumatism, acute, articular	75	6.06					3.20	.26	67	5.70					3.01	.26	8	12.72					.18	.29
Rheumatism, subacute and chronic, articular	66	5.33	2	.16			8.31	.67	64	5.45	2	.17			8.10	.69	2	3.18					.21	.34
Alcoholism and its results	376	30.38			2	.16	4.55	.36	371	31.57			2	.17	4.52	.38	5	7.95					.04	.06
Insanity	25	2.02	17	1.35			2.77	.22	25	2.13	17	1.43			2.78	.24								
Epilepsy	6	.48	2	.16			.24	.02	6	.51	2	.17			.24	.02								
Trachoma	3	.24					.25	.02	3	.26					.25	.02								
Organic diseases of the heart	27	2.18	7	.55	2	.16	2.48	.20	25	2.13	6	.50	2	.17	2.39	.20	2	3.18	1	1.36			.09	.14
Aneurism					1	.08							1	.08										
Filariasis, lymphatic varix			1	.08							1	.08												
Functional diseases of the heart	36	2.91	1	.08			1.86	.15	32	2.72	1	.08			1.67	.14	4	6.36					.19	.30
Bronchitis, acute and chronic	338	27.30					6.30	.51	305	25.95					5.97	.50	33	52.46					.33	.53
Broncho-pneumonia	3	.24			1	.08	.18	.01	2	.17					.13	.01	1	1.59			1	1.36	.05	.08
Pneumonia (pneumonic fever)	6	.48			4	.32	.55	.04	6	.51			4	.34	.55	.05								
Diarrhea and enteritis	1,618	130.69	1	.08	1	.08	28.09	2.27	1,535	130.63	1	.08	1	.08	26.84	2.28	83	131.96					1.25	1.99

Intestinal parasites	46	3.70					1.63	.15	46	3.93					1.63	.15								
Teniada	11	.88					.22	.03	11	.94					.22	.03								
Tenia mediocanellata (or saginata)	4	.32					.06	.01	4	.34					.06	.01								
Tenia solium	6	.48					.07	.01	6	.51					.07	.01								
Tenia nana	1	.08					.08	.01	1	.09					.08	.01								
Ascarida	21	1.69					.51	.04	21	1.79					.51	.04								
Ascaris lumbricoides	18	1.45					.48	.04	18	1.53					.48	.04								
Oxyuris vermicularis	3	.24					.03	.002	3	.26					.03	.002								
Strongylida	11	.89					.86	.07	11	.94					.86	.07								
Ankylostoma duodenale	8	.65					.53	.04	8	.68					.53	.04								
Uncinaria Americana	3	.24					.33	.03	3	.26					.33	.03								
Trichotrachelida	2	.16					.04	.003	2	.17					.04	.003								
Trichocephalus dispar	2	.16					.04	.003	2	.17					.04	.003								
Other intestinal parasites	1	.08					.01	.0004	1	.09					.01	.0005								
Inguinal and other herniæ	70	5.66	2	.16			8.28	.67	68	5.79	2	.17			7.99	.68	2	3.18					.21	.33
Hepatic abscess	4	.32			2	.16	.36	.03	4	.34			2	.17	.36	.03								
Appendicitis	67	5.44			1	.08	5.81	.47	63	5.36			1	.08	5.52	.47	4	6.36					.29	.46
Climatic bubo	18	1.45					1.25	.10	17	1.45					1.19	.10	1	1.59					.06	.09
Tropical ulcer	46	3.72					2.98	.24	36	3.06					2.43	.21	10	15.90					.54	.86
Pemphigus, contagiosus	27	2.18					.84	.07	27	2.30					.84	.07								
Dhobie itch	341	27.54					8.22	.66	293	24.97					7.25	.62	48	76.31					.97	1.55
Tinea imbricata	1	.08					.01	.001	1	.09					.01	.001								
Prickly heat	16	1.29					.18	.01	14	1.19					.14	.01	2	3.18					.04	.70
Acute nephritis	2	.16					.02	.002	2	.17					.02	.002								
Chronic nephritis	3	.24			2	.16	1.05	.09	3	.26			2	.17	.90	.08							.15	.24
Malingering	16	1.29					.39	.03	13	1.11					.35	.03	3	4.77					.04	.07
External causes, special.																								
Fractures, exclusive of gunshot	114	9.21	7	.55	1	.08	14.77	1.19	112	9.54	7	.59	1	.08	14.61	1.24	2	3.18					.16	.26
Dislocations	26	2.10	1	.08			1.26	.10	26	2.21	1	.08			1.26	.11								
Sprains and muscular strains	621	50.16	3	.24			13.15	1.07	574	48.85	3	.25			12.69	1.08	47	74.72					.46	.73
Wounds, gunshot	86	6.95	16	1.27	30	2.38	10.76	.87	82	6.98	15	1.26	30	2.52	9.71	.83	4	6.36	1	1.36			1.05	1.67
Wounds other than gunshot	634	51.22	6	.48	10	.79	18.76	1.52	561	47.74	6	.50	10	.84	17.62	1.50	73	116.07					1.15	1.82
Sunstroke	8	.65	1	.08			.15	.01	8	.68	1	.08			.15	.01								
Drowning					14	1.11							14	1.18										
Poisoning, acute	26	2.10			2	.16	.34	.03	18	1.53			2	.17	.29	.03	8	12.72					.05	.08
Venomous bites, etc	46	3.71					.80	.06	40	3.41					.61	.05	6	9.54					.19	.30
Snake bite	1	.08					.01	.0004	1	.09					.01	.0005								
Other venomous bites, etc	45	3.63					.79	.06	39	3.32					.61	.05	6	9.54					.19	.30
Diseases and injuries grouped.																								
General diseases	10,115	817.04	51	4.04	33	2.62	457.13	36.93	9,689	824.53	51	4.29	32	2.70	440.87	37.52	426	677.27			1	1.36	16.26	25.84
Epidemic diseases	5,641	455.65	7	.55	16	1.27	157.79	12.75	5,451	463.88	7	.59	16	1.35	152.91	13.01	190	302.07					4.88	7.76
Other general diseases	4,474	361.39	44	3.49	17	1.35	299.34	24.18	4,238	360.65	44	3.70	16	1.35	287.96	24.51	236	375.20			1	1.36	11.37	18.08

TABLE VI.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906—Philippine Islands*—Continued.

	Philippine Islands, total.								Philippine Islands, white.								Philippine Islands, colored.							
Mean strength	S. G. O. 12,380.—A. G. O. 12,622.								S. G. O. 11,751.—A. G. O. 11,885.								S. G. O. 629.—A. G. O. 737.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases and injuries grouped—Continued.																								
Diseases of the nervous system and organs of special sense	633	51.13	35	2.77	1	0.08	30.35	2.45	592	50.38	35	2.95	1	0.08	29.39	2.50	41	65.19					0.96	1.52
Of the nervous system	242	19.55	26	2.06	1	.08	12.53	1.01	225	19.15	26	2.19	1	.08	12.33	1.05	17	27.03					.21	.33
Of the eye and its adnexa	211	17.04	2	.16			9.38	.76	191	16.25	2	.17			8.67	.74	20	31.80					.70	1.12
Of the ear and its adnexa	180	14.54	7	.55			8.44	.68	176	14.98	7	.59			8.40	.71	4	6.36					.04	.07
Diseases of the—																								
Circulatory system	509	41.11	9	.71	4	.32	28.57	2.31	466	39.66	8	.67	3	.25	26.80	2.28	43	68.36	1	1.36	1	1.36	1.77	2.82
Respiratory system	578	46.69	2	.16	5	.40	14.38	1.16	528	44.93	2	.17	4	.34	12.80	1.08	50	79.49			1	1.36	1.58	2.51
Digestive system	3,529	285.06	6	.48	10	.79	82.64	6.67	3,273	278.53	6	.50	10	.84	79.12	6.73	256	407.00					3.51	5.58
Genito-urinary system	235	18.98			2	.16	11.05	.89	218	18.55			2	.17	10.37	.88	17	27.03					.68	1.09
Skin and cellular tissue	2,108	170.27					53.12	4.29	1,897	161.43					48.15	4.10	211	335.45					4.98	7.91
Organs of locomotion	461	37.24	3	.24			15.60	1.26	384	32.68	3	.25			14.09	1.20	77	122.42					1.52	2.41
Malformations, etc	23	1.86					2.19	.18	22	1.87					2.05	.17	1	1.59					.14	.22
Diseases, results of old age			1	.08							1	.08												
Ill-defined diseases	310	25.04			2	.16	8.85	.71	283	24.08			2	.17	8.22	.70	27	42.93					.63	1.01
Total for disease	18,501	1,494.43	107	8.48	57	4.52	703.89	56.86	17,352	1,476.64	106	8.92	54	4.54	671.86	57.17	1,149	1,826.71	1	1.36	3	4.07	32.02	50.91
External causes	2,549	205.90	36	2.85	58	4.60	80.42	6.50	2,333	198.54	35	2.94	58	4.88	76.25	6.49	216	343.40	1	1.36			4.16	6.62
Total for disease and external causes	21,050	1,700.32	143	11.33	115	9.11	784.30	63.35	19,685	1,675.18	141	11.86	112	9.42	748.12	63.66	1,365	2,170.11	2	2.71	3	4.07	36.19	57.53
Subclassification (repeated above):																								
Suicide					10								10											
Homicide					3								3											
Killed in action					21								21											
Died of wounds received in action					5								4								1			

TABLE VII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906—transports, Porto Rican troops, and Filipino troops.*

	Transports.								Porto Rican troops.								Philippine scouts.							
Mean strength	1,282.								S. G. O., 544—A. G. O., 546.								S. G. O., 4,759—A. G. O., 5,041.							
	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Typhoid fever	2	1.56					0.06	0.05	9	16.54			2	3.66	0.71	1.30	4	0.84			1	0.20	0.60	0.13
Fevers, undetermined	6	4.68					.08	.06	3	5.51					.05	.10	102	21.43					1.50	.31
Malarial fevers	185	144.31			1	0.78	2.99	2.34	141	259.19	1	1.83	1	1.83	2.91	5.34	1,871	393.15	1	0.20	6	1.19	28.84	6.06
Nonmalignant infection	72	56.16					.88	.69	134	246.33					2.74	5.04	1,579	331.79					23.15	4.86
Intermittent	72	56.16					.88	.69	121	222.43					2.41	4.43	1,474	309.73					21.27	4.47
Remittent or continued									13	23.90					.33	.61	105	22.06					1.88	.39
Malignant (æstivo-autumnal) infection	55	42.90			1	.78	.82	.64	1	1.84			1	1.83	.01	.02	135	28.36			6	1.19	3.56	.75
Intermittent	20	15.60					.39	.30									49	10.29			1	.20	.89	.19
Remittent or continued	35	27.30					.41	.32									83	17.44			3	.60	2.63	.55
Pernicious					1	.78	.02	.02	1	1.84			1	1.83	.01	.02	3	.63			2	.40	.04	.01
Undetermined infection	57	44.46					.74	.58									151	31.73					1.70	.36
Intermittent	50	39.00					.64	.50									140	29.42					1.48	.31
Remittent or continued	7	5.46					.10	.08									11	2.31					.22	.05
Malarial cachexia	1	.78					.55	.43	6	11.03	1	1.83			.16	.29	6	1.26	1	.20			.42	.09
Smallpox									1	1.84					.08	.15	2	.42					.09	.02
Measles	19	14.82					.42	.33	8	14.71					.63	1.16	3	.63					.24	.05
Eruptive fevers, others																	9	1.89					.38	.08
Influenza	2	1.56					.02	.01	40	73.53					.69	1.27	2	.42					.08	.02
Asiatic cholera																	13	2.73			8	1.59	.26	.05
Dysentery	15	11.70					6.13	4.78	10	18.38	1	1.83			1.14	2.10	97	20.38	2	.40	3	.60	4.70	.99
Amebic	4	3.12					4.85	3.78	2	3.68	1	1.83			.47	.86	39	8.20	1	.20	3	.60	2.83	.59
Bacillary	1	.78					.08	.06	2	3.68					.15	.27	2	.42					.07	.01
Mixed infections and other dysenteries	10	7.80					1.20	.94	6	11.03					.52	.96	56	11.77	1	.20			1.81	.38
Leprosy																	1	.21					.15	.03
Beriberi	1	.78					.10	.08									176	36.98	6	1.19	9	1.79	21.39	4.50
Erysipelas									1	1.84					.03	.06								
Dengue	13	10.14					.08	.06									74	15.55					1.29	.27
Mumps	97	75.66					2.65	2.07									5	1.05					.20	.04
Cerebro-spinal meningitis, epidemic																	1	.21			1	.20	.02	.003
Yaws (frambesia)																	1	.21					.02	.003

TABLE VII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906—transports, Porto Rican troops, and Filipino troops*—Continued.

	Transports.								Porto Rican troops.								Philippine scouts.							
Mean strength	1,282.								S. G. O., 544—A. G. O., 546.								S. G. O., 4 759—A. G. O., 5,041.							
	Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.		Admissions.		Discharges.		Deaths.		Noneffective.	
Causes of admission to sick report.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Other epidemic diseases	4	3.12					0.10	0.08	3	5.51					0.03	0.05							0.22	0.05
Purulent infection and septicemia																	3	0.63			1	0.20	.60	.13
Tuberculosis, all	5	3.90	2	1.56	2	1.56	5.84	4.56									47	9.88	24	4.76	3	.60	7.14	1.50
Tuberculosis, pulmonary	5	3.90	2	1.56	2	1.56	5.58	4.36									41	8.62	24	4.76			5.71	1.20
Tuberculosis of other organs							.26	.20									6	1.26			3	.60	1.43	.29
Venereal diseases, all	162	126.37					8.02	6.27	155	284.93	2	3.66			9.48	17.43	301	63.25	1	.20			17.57	3.69
Syphilis and its results	23	17.94					2.08	1.62	28	51.47					2.67	4.90	15	3.15	1	.20			1.93	.41
Chancroid and its results	23	17.94					1.22	.96	48	88.24					2.22	4.08	32	6.72					2.85	.60
Gonorrhea and its results	116	90.48					4.71	3.69	79	145.23	2	3.66			4.59	8.45	254	53.37					12.79	2.68
Cancer and other malignant growths							.08	.06									1	.21			2	.40	.28	.06
Rheumatism, acute, articular	6	4.68					.13	.10	7	12.87					.25	.45	21	4.41					.70	.15
Rheumatism, subacute and chronic, articular	2	1.56					1.13	.88	1	1.84					.14	.26	5	1.05					.22	.05
Alcoholism and its results	6	4.68					.31	.24	5	9.19					.04	.08	3	.63					.03	.007
Insanity							2.20	1.72									3	.63	3	.60			.60	.13
Epilepsy							.39	.30																
Trachoma	2	1.56					.18	.14																
Organic diseases of the heart							1.03	.81	1	1.84			1	1.83	.02	.04	9	1.89	3	.60	3	.60	.72	.15
Functional diseases of the heart	1	.78					.51	.40	2	3.68					.04	.08	1	.21					.02	.004
Bronchitis, acute and chronic	36	28.08					.53	.41	13	23.90					.30	.55	319	67.03					6.47	1.36
Broncho-pneumonia	1	.78					.02	.01									1	.21					.08	.02
Pneumonia (pneumonic fever)	4	3.12					.18	.14	2	3.68			1	1.83	.12	.21	8	1.68			1	.20	.75	.16
Diarrhea and enteritis	28	21.84					.43	.34	17	31.25					.30	.56	454	95.40			1	.20	5.71	1.20
Intestinal parasites	1	.78					.14	.10	17	31.25					.38	.70	28	5.88					1.13	.23
Teniada	1	.78					.04	.03	1	1.84					.01	.02								
Tenia solium	1	.78					.04	.03	1	1.84					.01	.02								

Ascarida							.01	.004	3	5.51					.08	.14	19	3.99					.34	.07
Ascaris lumbricoides							.01	.004	3	5.51					.08	.14	19	3.99					.34	.07
Strongylida							.09	.07	13	23.90					.30	.54	8	1.68					.68	.14
Ankylostoma duodenale							.09	.07									5	1.05					.29	.06
Uncinaria Americana									13	23.90					.30	.54	3	.63					.39	.08
Other intestinal parasites																	1	.21					.10	.02
Inguinal and other herniæ	1	.78					.19	.15	2	3.68					.01	.01	9	1.89	1	.20			1.18	.24
Hepatic abscess							.23	.18																
Appendicitis	2	1.56					.15	.12									6	1.26			3	.60	.24	.05
Climatic bubo	2	1.56					.09	.07									5	1.05					.66	.14
Tropical ulcer							.19	.15									34	7.14					1.05	.22
Pemphigus, contagiosus									1	1.84					.01	.03	5	1.05					.08	.02
Dhobie itch	2	1.56					.02	.02	6	11.03					.19	.35	205	43.08					4.62	.97
Tenia imbricata									1	1.84					.03	.05								
Prickly heat									1	1.84					.01	.02								
Acute nephritis									1	1.84					.18	.33								
Chronic nephritis	1	.78					.41	.31																
Malingering									1	1.84					.05	.09	7	1.47					.07	.02
External causes, special.																								
Fractures, exclusive of gunshot	5	3.90					1.16	.91	1	1.84					.14	.26	19	3.99					1.84	.39
Dislocations							.10	.08									3	.63					.07	.01
Sprains and muscular strains	9	7.02					.30	.23	8	14.70					.27	.50	110	23.12					1.93	.40
Wounds, gunshot	1	.78					.72	.56	1	1.84					.25	.46	11	2.31	2	.40	5	.99	1.91	.40
Wounds other than gunshot	13	10.14					.48	.37	26	47.79					.62	1.14	168	35.32	2	.40	2	.40	4.58	.96
Sunstroke							.08	.06									1	.21					.01	.001
Drowning					1	.78															4	.79		
Poisoning, acute	8	6.24					.07	.05									7	1.47					.19	.04
Venomous bites, etc.	1	.78					.01	.004	2	3.68					.01	.03	24	5.04					.33	.07
Diseases and injuries, grouped.																								
General diseases	521	406.40			5	3.90	28.76	22.43	385	707.72	4	7.33	3	5.49	16.23	29.84	2,661	559.15	34	6.74	34	6.74	86.54	18.18
Epidemic diseases	338	263.65			1	.78	12.56	9.79	213	391.54	2	3.66	3	5.49	6.24	11.47	2,267	476.36	9	1.79	28	5.55	58.48	12.29
Other general diseases	183	142.75			4	3.12	16.21	12.64	172	316.18	2	3.66			10.00	18.37	394	82.79	25	4.96	6	1.19	28.05	5.89
Diseases of the nervous system and organs of special sense	75	58.50			1	.78	8.12	6.34	38	69.86	1	1.83	1	1.83	.70	1.29	191	40.14	8	1.59			5.95	1.25
Of the nervous system	55	42.90			1	.78	5.39	4.21	28	51.47			1	1.83	.45	.82	40	8.41	5	.99			1.56	.33
Of the eye and its adnexa	8	6.24					1.29	1.01	8	14.71					.19	.35	119	25.01	3	.60			3.59	.75
Of the ear and its adnexa	12	9.36					1.44	1.12	2	3.68	1	1.83			.07	.12	32	6.72					.79	.17

TABLE VII.—*Admissions to sick report, discharges, deaths, and noneffectiveness, with ratios per 1,000 of mean strength, for the year 1906—transports, Porto Rican troops, and Filipino troops*—Continued.

	Transports.								Porto Rican troops.								Philippine scouts.							
Mean strength	1,282.								S. G. O., 544—A. G. O., 546.								S. G. O., 4,759—A. G. O., 5,041.							
Causes of admission to sick report.	Admissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Discharges.		Deaths.		Non-effective.		Admissions.		Discharges.		Deaths.		Non-effective.	
	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.	Number.	Ratio.
Diseases and injuries, grouped—Continued.																								
Diseases of the—																								
Circulatory system	14	10.92					2.04	1.59	22	40.44			1	1.83	0.49	0.90	87	18.28	3	0.60	4	0.79	4.03	0.85
Respiratory system	62	48.36					1.83	1.43	34	62.50			2	3.66	.63	1.15	416	87.42			1	.20	9.63	2.02
Digestive system	130	101.40					4.36	3.40	98	180.15			2	3.66	1.59	2.92	1,057	222.11	1	.20	5	.99	14.61	3.07
Genito-urinary system	10	7.80					.97	.76	28	51.47					1.01	1.86	33	6.93					1.49	.31
Skin and cellular tissue	62	48.36					1.28	1.00	120	220.59					2.61	4.79	880	184.92					21.39	4.49
Organs of locomotion	16	12.48					1.39	1.08	15	27.57					.76	1.39	138	29.00					3.77	.79
Malformations, etc							.82	.64											1	.20			.04	.007
Ill-defined diseases	19	14.82					.59	.46	11	20.22	1	1.83			.24	.45	130	27.32			1	.20	2.14	.45
Total for disease	909	709.05	2	1.56	6	4.68	50.17	39.13	751	1,380.51	6	10.99	9	16.48	24.26	44.59	5,593	1,175.25	47	9.32	45	8.93	149.56	31.43
External causes	63	49.14			3	2.34	4.51	3.52	68	125.00					1.81	3.33	670	140.79	4	.79	13	2.58	15.99	3.36
Total for disease and external causes	972	758.19	2	1.56	9	7.02	54.68	42.65	819	1,505.51	6	10.99	9	16.48	26.07	47.92	62.63	1,316.03	51	10.12	58	11.51	165.56	34.79
Subclassification (repeated above):																								
Suicide					1																			
Homicide																					2			
Killed in action																					3			

INTERNATIONAL MILITARY MEDICAL STATISTICS FOR THE YEAR 1906.

The following tables are those agreed upon at the meeting of the International Commission for the Unification of the Medical Statistics of Armies held at Budapest in 1894 and modified by the last meeting, held at Madrid in 1903. They are calculated for the United States Army proper (white and colored) and include enlisted men only. Dispositions include cases remaining from last year, but do not include cases remaining at the close of the current year. Deaths include suicides and accidents. Days lost include those lost this year by cases remaining from last year.

Table I shows in absolute numbers, by departments, the mean strength of the command, the admissions to quarters, to hospital, and total admissions; the disposition of the sick, total, and the number returned to duty, died, and otherwise disposed of, and the total number of days of sickness.

Table II gives the same data in ratios per 1,000, and also shows the days lost per soldier and per admission.

Table III shows, by arms of service, the mean strength, the total admissions, and those to hospital only, the total dispositions, and the number of those returned to duty, and the number that died.

Table IV gives the same data as Table III by months.

Table V shows for each of 46 of the larger garrisons the mean strength, admissions to hospital, total admissions, and the deaths.

Table VI shows for each of the 35 diseases or disease groups agreed upon by the International Commission the number remaining under treatment at the commencement and close of the current year, the admissions and dispositions for the year, the total sick days, and the average number of days per case.

Table VII shows the admissions by arms of service for the diseases and disease groups referred to in Table VI.

Table VIII shows the same data as Table VII by months.

Table IX shows deaths by rank, by length of service, and by age.

Table X shows the same data as Table IX for discharges for physical disability.

INTERNATIONAL TABLE I.—*Movement of sick by army corps (departments), absolute numbers.*

Department.	Mean strength.	Admitted sick.			Sick disposed of.				Total days sick.
		Total.	To hospital.	To quarters.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Total.	
United States, (excluding Alaska):									
Department of the East	11,515	13,477	9,059	4,418	12,907	41	497	13,445	153,768
Department of the Gulf	3,484	4,342	3,117	1,225	4,181	24	161	4,366	57,415
Department of the Lakes	2,220	3,264	2,774	490	3,047	12	319	3,378	49,797
Department of the Missouri	6,521	6,497	5,058	1,439	6,575	36	243	6,854	89,354
Department of Dakota	1,836	2,219	1,909	310	2,175	8	85	2,268	32,921
Department of Texas	3,185	4,122	2,874	1,248	3,873	13	254	4,140	51,423
Department of the Colorado	1,600	1,738	1,453	285	1,677	7	92	1,776	22,165
Department of California	3,841	4,518	2,263	2,255	3,425	7	131	3,563	35,441
Department of the Columbia (excluding Alaska)	2,643	2,812	2,180	632	2,708	19	142	2,869	41,282
Camps of instruction	3,301	4,363	1,129	3,234	3,625	15	63	3,703	21,890
General hospitals	475	578	454	124	1,664	41	544	2,249	140,277
Total	40,621	47,930	32,270	15,660	45,857	223	2,531	48,611	695,733
Alaska	805	575	370	205	553	6	12	571	7,014
The Philippines Division:									
Department of Luzon	6,007	11,309	9,302	2,007	10,342	32	323	10,697	137,801
Department of the Visayas	2,635	4,508	2,996	1,512	4,238	29	122	4,389	51,882
Department of Mindanao	3,623	5,056	4,367	689	4,866	41	82	4,989	67,283
General hospital and inter-island transports	115	177	164	13	690	3	36	729	29,305
Cases invalided home	....	......	......	......	....	10	142	152	....
Total	12,380	21,050	16,829	4,221	20,136	115	705	20,956	286,271
Cuba	1,123	1,310	635	675	1,110	3	17	1,130	12,613
Hawaii	232	234	181	53	218	2	10	230	4,228
Army transports	1,282	972	805	167	903	9	23	935	19,956
United States Army	56,443	72,071	51,090	20,981	68,777	358	3,298	72,433	1,025,815

INTERNATIONAL TABLE II.—*Movement of sick by army corps (departments), proportionate numbers.*

Department.	In 1,000 of mean strength.			In 1,000 sick disposed of.			Days lost.	
	Total admissions.	Admissions to hospital.	Deaths.	Returned to duty (recovered).	Died.	Otherwise disposed of.	Per soldier.	Per admission.
United States (excluding Alaska):								
Department of the East	1,170.39	786.71	3.56	959.99	3.05	36.96	13.35	11.41
Department of the Gulf	1,246.27	894.66	6.89	957.63	5.50	36.87	16.48	13.22
Department of the Lakes	1,470.27	1,249.55	5.41	902.01	3.55	94.44	22.43	15.26
Department of the Missouri	996.32	775.65	5.52	959.30	5.25	35.45	13.70	13.75
Department of Dakota	1,208.61	1,039.76	4.36	958.99	3.53	37.48	17.93	14.84
Department of Texas	1,294.19	902.35	4.08	935.51	3.14	61.35	16.15	12.48
Department of the Colorado	1,086.25	908.12	4.37	944.26	3.94	51.80	13.85	12.75
Department of California	1,176.26	589.17	1.82	961.27	1.96	36.77	9.23	7.84
Department of the Columbia (excluding Alaska)	1,063.94	824.82	7.19	943.89	6.62	49.49	15.62	14.68
Camps of instruction	1,321.72	342.02	4.54	978.94	4.05	17.01	6.63	5.02
General hospitals				739.88	18.23	241.89		
Total	1,179.93	794.42	5.28	943.35	4.59	52.06	17.13	14.52
Alaska	714.29	459.63	7.45	968.48	10.51	21.01	8.71	12.20
The Philippines Division:								
Department of Luzon	1,882.64	1,548.53	5.33	966.81	2.99	30.20	22.94	12.18
Department of the Visayas	1,710.82	1,123.30	11.01	965.60	6.60	27.80	19.69	11.59
Department of Mindanao	1,395.53	1,205.35	11.32	975.34	8.22	16.44	18.57	13.31
General hospital and inter-island transports	1,539.13	1,426.09	26.08	946.50	4.12	49.38		
Cases invalided home					65.80	934.21		
Total	1,700.32	1,359.37	9.11	960.86	5.49	33.65	23.12	13.60
Cuba	1,166.52	565.45	2.40	982.30	2.66	15.04	11.23	9.63
Hawaii	1,008.62	780.17	8.06	947.83	8.70	43.47	18.22	18.07
Army transports	758.62	627.92	7.02	965.77	9.63	24.60	15.57	20.53
United States Army	1,276.88	905.16	6.11	949.52	4.94	45.54	18.17	14.23

INTERNATIONAL TABLE III.—*Movement of sick, by arms of service.*

Arms of service.	Absolute numbers.						Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
	Mean strength.	Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.[a]	Fit for duty (recovered).	Deaths.
Infantry	22,241	29,148	21,343	29,244	27,854	173	1,310.55	959.62	7.49	952.47	5.92
Cavalry	11,160	15,041	10,498	15,223	14,601	74	1,347.76	940.68	6.43	959.14	4.86
Coast Artillery	10,735	12,912	9,216	12,885	12,380	47	1,202.79	858.50	4.21	960.81	3.65
Field Artillery	3,269	4,920	3,327	4,969	4,775	23	1,505.05	1,017.74	6.78	960.96	4.63
Engineers	1,172	1,303	585	1,284	1,230	4	1,111.77	499.15	3.28	957.94	3.12
Ordnance	636	452	157	444	425	2	710.69	246.86	3.03	957.43	4.50
Signal Corps	1,097	929	469	916	862	5	846.86	427.53	4.35	941.05	5.46
Hospital Corps	3,063	2,359	1,793	2,422	2,261	17	770.16	585.37	5.36	933.53	7.02
Others	3,070	5,007	3,702	5,046	4,389	13	1,630.94	1,205.86	4.08	869.80	2.58
Total	56,443	72,071	51,090	72,433	68,777	358	1,276.88	905.16	6.11	949.53	4.94

[a] Ratios for deaths based on mean strength "present and absent," total, 58,572.

INTERNATIONAL TABLE IV.—*Movement of sick, by months.*

Month.	Absolute numbers.						Proportionate numbers.				
		Sick admissions.		Sick disposed of.			Per 1,000 of mean strength.			Per 1,000 sick disposed of.	
	Mean strength.	Total.	To hospital.	Total.	Fit for duty (recovered).	Deaths.	Total sick admissions.	Admissions to hospital.	Deaths.[a]	Fit for duty (recovered).	Deaths.
January	57,854	6,342	4,787	6,239	5,878	21	109.62	82.74	.35	942.14	3.37
February	58,866	5,519	4,165	5,498	5,216	23	93.76	70.75	.38	948.71	4.18
March	58,724	6,499	4,905	6,378	5,960	50	110.67	83.53	.83	934.46	7.84
April	57,616	6,474	4,834	6,663	6,326	39	112.36	83.90	.65	949.42	5.85
May	57,089	6,153	4,371	6,323	6,027	26	107.78	76.56	.44	953.19	4.11
June	56,824	5,888	4,314	5,855	5,519	26	103.62	75.92	.44	942.61	4.44
July	55,793	5,900	4,318	6.047	5,733	35	105.75	77.39	.60	948.08	5.79
August	55,603	7,275	4,337	7,045	6,748	36	130.84	78.00	.62	957.84	5.11
September	54,448	5,842	3,590	6,312	5,995	32	107.30	65.93	.56	949.78	5.07
October	54,628	5,398	3,769	5,204	4,973	27	98.81	68.99	.47	955.61	5.19
November	55,410	5,254	3,756	5,241	5,027	16	94.82	67.79	.28	959.17	3.05
December	54,464	5,527	3,944	5,628	5,375	27	101.48	72.41	.48	955.05	4.80
Total	56,443	72,071	51,090	72,433	68,777	358	1,276.88	905.16	6.11	949.53	4.94

[a] Ratios for deaths based on mean strength "present and absent," total, 58,572.

INTERNATIONAL TABLE V.—*Movement of sick in the larger garrisons.*

Garrisons.	Mean strength.	Total admissions.		Admissions to hospital.		Deaths.	
		Absolute number.	Per 1,000 mean strength.	Absolute number.	Per 1,000 mean strength	Absolute number	Per 1,000 mean strength.
Presidio of Monterey, Cal.	540	467	864.81	357	661.11	2	3.70
Fort Sam Houston, Tex.	840	861	1,025.00	622	740.48	2	2.38
Fort Riley, Kans.	1,611	1,665	1,033.52	1,336	829.30	9	5.59
Fort Leavenworth, Kans.	1,815	1,952	1,075.48	1,505	829.20	11	6.06
Fort D. A. Russell, Wyo.	521	563	1,080.61	528	1,013.44	4	7.68
Fort Monroe, Va.	705	808	1,146.10	575	815.60	3	4.26
Fort Snelling, Minn.	751	912	1,214.38	783	1,042.61	3	3.99
Vancouver Barracks, Wash.	621	756	1,217.39	652	1,049.92	9	14.49
Presidio of San Francisco, Cal. (post)	1,214	1,564	1,288.30	484	398.68	.....	.....
Fort Oglethorpe, Ga.	548	807	1,472.63	646	1,178.83	7	12.77
Fort Ethan Allen, Vt.	694	1,094	1,576.37	327	471.28	1	1.44
Columbus Barracks, Ohio	763	1,540	2,018.35	1,464	1,918.74	1	1.31
Jefferson Barracks, Mo.	655	1,501	2,291.60	931	1,421.37	2	3.05
Fort Slocum, N. Y.	680	1,589	2,336.76	1,071	1,575.00	5	7.35
Fort Gibbon, Alaska	184	125	679.35	71	385.87	2	10.87
Fort William H. Seward, Alaska	191	150	785.34	113	591.62	.....	.....
Camp Columbia, Cuba (post)	412	438	1,063.11	137	332.52	.....	.....
Honolulu, Hawaii	232	234	1,008.62	181	780.17	2	8.06
Camp Overton, Mindanao, P. I.	398	368	924.62	235	590.45	4	10.05
Camp Keithley, Mindanao, P. I.	948	964	1,016.88	848	894.51	7	7.38
Camp Connell, Samar, P. I.	547	558	1,020.11	543	992.69	2	3.66
Malabang, Mindanao, P. I.	537	653	1,216.01	546	1,016.76	1	1.86
Manila posts, Manila, P. I.	738	918	1,243.90	605	819.78	1	1.36
Camp Daraga, Luzon, P. I.	250	357	1,428.00	317	1,268.00	1	4.00
Camp Bumpus, Leyte, P. I.	304	435	1,430.92	305	1,003.29	9	29.61
Camp Wallace, Luzon, P. I.	245	360	1,469.39	317	1,293.88	1	4.08
Camp Jossman, Guimaras, P. I.	526	822	1,562.74	714	1,357.41	6	11.41
Camp Wilhelm, Luzon, P. I.	201	316	1,572.14	293	1,457.71	.....	.....
Parang, Mindanao, P. I.	371	657	1,770.89	554	1,493.26	3	8.09
Camp McGrath, Luzon, P. I.	472	846	1,792.37	667	1,413.14	1	2.12
Zamboanga, Mindanao, P. I.	311	588	1,890.68	557	1,791.00	1	3.22
Fort William McKinley, Luzon, P. I.	2,019	3,941	1,951.96	3,032	1,501.73	12	5.94
Camp Gregg, Luzon, P. I.	235	480	2,042.55	391	1,663.83	5	21.28
Jolo, Jolo, P. I.	645	1,386	2,148.84	1,309	2,029.46	24	37.21
Camp Downes, Leyte, P. I.	236	545	2,309.32	338	1,432.20	3	12.71
Camp Stotsenburg, Luzon, P. I.	1,585	3,778	2,383.60	3,449	2,176.03	7	4.42
Warwick Barracks, Cebu, P. I.	227	593	2,612.33	398	1,753.30	1	4.41

INTERNATIONAL TABLE VI.—*Movement of sick according to most important diseases.*

Numbers of national nomenclature.[a]	Numbers of international nomenclature.	Diseases of the international nosological table.	Absolute numbers.									Proportionate numbers.					
						Disposed of in 1906.						Per 1,000 of mean strength.		Per 1,000 disposed of.			
			Remaining at close of year 1905.	Admitted in 1906.	Total remaining and admitted.	Fit for duty.	Died.	Otherwise.	Total.	Remaining at close of 1906.	Total days sick in 1906.	Admissions.	Deaths.	Fit for duty.	Died.	Otherwise.	Average days of treatment.
83 and 84	1	Alkoholismus acutus, including delirium tremens	15	1,668	1,683	1,604	3	52	1,659	24	6,777	29.56	0.05	966.85	1.81	31.34	4.06
173	2	Bronchitis acuta	52	2,201	2,253	2,191	....	26	2,217	36	13,063	39.00	......	988.27	....	11.73	5.94
18	3	Cholera Asiatica	......	7	7	4	3	......	7	......	110	.12	.05	571.43	428.57	....	15.71
19	4	Cholera nostras	......	18	18	16	....	1	17	1	48	.32	......	941.18	....	58.82	2.67
15	5	Diphtheria et croup	10	17	27	24	....	1	25	2	545	.30	......	960.00	....	40.00	32.06
20 to 22	6	Dysenteria	77	817	894	731	4	62	797	97	31,300	14.47	.07	917.19	5.02	77.79	38.31
26	7	Erysipelas	3	32	35	29	2	2	33	2	627	.57	.03	878.79	60.61	60.61	19.59
4, 6 and 8½	8	Febris intermittens (malaria) [b]	86	4,530	4,616	4,474	2	95	4,571	45	30,740	80.26	.03	978.78	.44	20.78	6.79
3	9	Febris recurrens	......	......	......	......	....	......	......	......	......	......	......	......	......	......	......
60 to 66	10	Gonorrhea	431	7,035	7,466	6,714	1	358	7,073	393	157,199	124.65	.02	949.24	.14	50.62	22.34
210 and 211	11	Hernia	38	343	381	277	....	76	353	28	13,517	6.08	......	784.70	....	215.30	39.41
16	12	Influenza	16	948	964	913	1	12	926	38	7,039	16.80	.02	985.96	1.08	12.96	7.43
316	13	Insolatio (Hitzschlag, coup de chaleur)	......	11	11	9	2	......	11	......	111	.19	.03	818.18	181.81	....	10.09
27	14	Meningitis cerebro-spinalis epidemica	......	1	1	....	1	......	1	......	11	.02	.02	....	1,000.00	....	11.00
12	15	Morbilli	13	362	375	332	....	32	364	11	5,701	6.41	......	912.09	....	87.91	15.75
30	16	Parotitis epidemica	47	1,011	1,058	1,009	....	49	1,058	......	15,611	17.91	......	953.69	....	46.31	15.44
177	17	Pleuritis	10	190	200	174	1	14	189	11	5,402	3.37	.02	920.63	5.29	74.07	28.43
176	18	Pneumonia crouposa sive lobaris	10	106	116	81	14	7	102	14	3,468	1.88	.24	794.12	137.25	68.63	32.72
73 and 74	19	Rheumatismus articulorum	47	903	950	827	....	65	892	58	25,336	15.99	......	927.13	....	72.87	28.06
13	20	Scarlatina	1	2	3	3	....	......	3	......	94	.04	......	1,000.00	....	....	47.00
76	21	Scorbutus	......	1	1	....	1	......	1	......	162	.02	.02	....	1,000.00	....	162.00
54 to 57	22	Syphilis	158	1,614	1,772	1,438	4	172	1,614	158	62,694	28.60	.07	890.95	2.48	106.57	38.84
112	23	Trachoma	4	29	33	20	....	10	30	3	978	.51	......	666.67	....	333.33	33.72
47 and 48	24	Tuberculosis pulmonum [c]	163	254	417	45	37	211	293	124	55,413	4.50	.63	153.58	126.28	720.14	218.16
49 to 53	25	Tuberculosis ceterorum organorum	7	39	46	18	8	10	36	10	4,062	.69	.14	500.00	222.22	277.78	104.15
1	26	Typhus abdominalis	15	347	362	245	15	28	288	74	18,392	6.15	.26	850.69	52.08	97.22	53.00
2	27	Typhus exanthematicus	......	......	......	......	....	......	......	......	......	......	......	......	......	......	......
58 and 59	28	Ulcus molle (including adenitis venerea)	156	2,100	2,256	2,006	....	88	2,094	162	49,727	37.21	......	957.98	....	42.02	23.68
11	29	Variola	4	15	19	18	1	......	19	......	610	.27	.02	947.37	52.63	....	40.67
132 to 136	30	Morbi auris	32	596	628	486	1	118	605	23	12,751	10.56	.02	803.31	1.65	195.04	21.39

137 to 139	31	Morbi cordis[d]	25	170	195	34	13	83	180	15	5,918	3.01	.22	466.67	72.72	.11	34.81
258, 260–266, 268, 270, and 271	32	Morbi cutis[e]	29	1,478	1,507	1,419	....	52	1,471	36	13,942	26.19	......	964.65	....	35.35	9.43
100	33	Morbi mentis[f]	18	84	102	13	....	78	91	11	6,925	1.49	......	142.86	....	857.14	82.44
111 to 131	34	Morbi oculi	50	1,115	1,165	947	....	177	1,124	41	19,566	19.75	......	842.53	....	157.47	17.55
229 to 248	35	Morbi systemat. urin. et sexual (excluding veneric et syphilis)	40	902	942	833	8	68	909	33	16,576	15.98	.14	916.39	8.80	74.81	18.38

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[a] Numbers to nomenclature used in 1906.

[b] Malarial fever, intermittent only.

[c] Includes tuberculosis of the lungs and larynx.

[d] Includes pericarditis and endocarditis.

[e] Includes all diseases of the skin proper.

[f] Includes insanity only.

INTERNATIONAL TABLE VII.—*Most important diseases, by arms of service.*

Numbers of national nomenclature.[a]	Numbers of international nomenclature.	Diseases of the international nosological table.	Absolute numbers—Admissions by arms of service.									Proportionate numbers—Admissions per 1,000 of mean strength.								
			Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.	Infantry.	Cavalry.	Coast Artillery.	Field Artillery.	Engineers.	Ordnance.	Signal Corps.	Hospital Corps.	Others.
83 and 84	1	Alkoholismus acutus, including delirium tremens	717	204	494	41	46	13	29	86	38	32.24	18.28	46.02	12.54	39.25	20.44	26.44	28.08	12.38
173	2	Bronchitis acuta	686	403	631	148	50	34	42	62	145	30.84	36.11	58.78	45.27	42.66	53.46	38.29	20.24	47.23
18	3	Cholera Asiatica	6	1								.27	.09							
19	4	Cholera nostras	1	3	4	7	1		1	1		.04	.27	.37	2.14	.85		.91	.33	
15	5	Diphtheria et croup	5	3	3	2	1				3	.22	.27	.28	.61	.85				.98
20 to 22	6	Dysenteria	542	95	30	26	22		14	75	13	24.37	8.51	2.79	7.95	18.77		12.76	24.49	4.23
26	7	Erysipelas	19	2	1			1		5	4	.85	.18	.09			1.57		1.63	1.30
4, 6 and 8½	8	Febris intermittens (malaria)[b]	1,576	1,176	479	482	54	9	36	143	251	70.86	105.38	44.62	147.45	46.08	14.15	32.82	46.69	81.76
3	9	Febris recurrens																		
60 to 66	10	Gonorrhea	3,214	1,509	1,110	425	98	5	99	151	424	144.51	135.22	103.40	130.01	83.62	7.86	90.25	49.30	138.11
210 and 211	11	Hernia	120	75	50	13	6	2	1	15	61	5.40	6.72	4.66	3.98	5.12	3.14	.91	4.90	19.87
16	12	Influenza	225	141	386	21	1	22	35	60	57	10.12	12.63	35.96	6.42	.85	34.59	31.90	19.59	18.57
316	13	Insolatio (Hitzschlag, coup de chaleur)	4	6						1		.18	.54						.33	
27	14	Meningitis cerebro-spinalis epidemica			1									.09						
12	15	Morbilli	113	29	97	35			1	11	76	5.08	2.60	9.04	10.71			.91	3.59	24.76
30	16	Parotitis epidemica	433	85	132	84	11	1	9	17	239	19.47	7.62	12.30	25.70	9.39	1.57	8.20	5.55	77.85
177	17	Pleuritis	82	25	47	12	4	1	3	7	9	3.69	2.24	4.38	3.67	3.41	1.57	2.73	2.29	2.93
176	18	Pneumonia crouposa sive lobaris	42	16	23	4	1	1	1	4	14	1.89	1.43	2.14	1.22	.85	1.57	.91	1.31	4.56
73 and 74	19	Rheumatismus articulorum	409	152	157	60	18	19	6	44	38	18.39	13.62	14.63	18.35	15.36	29.87	5.47	14.37	12.38
13	20	Scarlatina				1		1							.31		1.57			
76	21	Scorbutus				1									.31					
54 to 57	22	Syphilis	706	326	305	94	31		29	45	78	31.74	29.21	28.41	28.76	26.45		26.44	14.69	25.41
112	23	Trachoma	6	2	2	1			2	1	15	.27	.18	.19	.31			1.82	.33	4.89
47 and 48	24	Tuberculosis pulmonum[c]	101	40	31	16	3	2	3	37	21	4.54	3.58	2.89	4.89	2.56	3.14	2.73	12.08	6.84
49 to 53	25	Tuberculosis ceterorum organorum	13	6	12	3	1	1			3	.58	.54	1.12	.92	.85	1.57			.98
1	26	Typhus abdominalis	163	91	21	23	12	4	10	12	11	7.33	8.15	1.96	7.04	10.24	6.29	9.12	3.92	3.58
2	27	Typhus exanthematicus																		
58 and 59	28	Ulcus molle (including adenitis venerea)	1.117	439	261	141	20	1	23	25	73	50.22	39.34	24.31	43.13	17.06	1.57	20.97	8.16	23.78
11	29	Variola	8	1	3						3	.36	.09	.28						.98

132 to 136	30	Morbi auris	235	95	88	24	5	....	5	20	124	10.57	8.51	8.20	7.34	4.27	....	4.56	6.53	40.39
137 to 139	31	Morbi cordis [d]	55	16	26	7	1	1	1	11	52	2.47	1.43	2.42	2.14	.85	1.57	.91	3.59	16.94
258 260 to 266 268 270 and 271	32	Morbi cutis [e]	681	258	261	101	31	12	2	31	101	30.62	23.12	24.31	30.90	26.45	18.87	1.82	10.12	32.90
100	33	Morbi mentis [f]	42	10	12	7			..	6	7	1.89	.90	1.12	2.14	..	....	....	1.96	2.28
111 to 131	34	Morbi oculi	350	207	201	61	24	4	21	48	199	15.74	18.55	18.72	18.36	20.48	6.29	19.14	13.67	64.82
229 to 248	35	Morbi systemat. urin. et sexual (excluding venerie et syphilis)	336	202	140	64	17	10	12	61	60	15.11	18.10	13.04	19.58	14.51	15.72	10.94	19.92	19.54

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[a] Numbers to nomenclature used in 1906.

[b] Malarial fever, intermittent only.

[c] Includes tuberculosis of lungs and larynx.

[d] Includes pericarditis and endocarditis.

[e] Includes all diseases of the skin proper.

[f] Includes insanity only.

INTERNATIONAL TABLE VIII.—*Most important diseases by months.*

Numbers of national nomenclature.[a]	Numbers of international nomenclature.	Diseases of the international nosological table.	Admissions by months.											
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
83 and 84	1	Alkoholismus acutus, including delirium tremens	142	162	158	160	97	150	118	106	120	115	153	187
173	2	Bronchitis acuta	281	192	299	181	181	96	127	143	131	187	160	223
18	3	Cholera Asiatica	....	....	....	....	....	2	3	1	....	1	....	....
19	4	Cholera nostras	....	....	....	1	....	....	4	5	5	....	....	3
15	5	Diphtheria et croup	5	1	1	1	....	....	....	....	1	1	....	7
20 to 22	6	Dysenteria	59	45	49	47	67	58	74	92	84	109	70	63
26	7	Erysipelas	4	4	5	9	2	....	....	2	2	2	....	2
4, 6 and 8½	8	Febris intermittens (malaria)[b]	379	269	356	468	445	415	413	605	483	283	218	196
3	9	Febris recurrens	....	....	....	....	....	....	....	....	....	....	....	....
60 to 66	10	Gonorrhea	675	622	681	609	558	581	549	535	525	567	582	551
210 and 211	11	Hernia	34	34	37	39	21	26	26	33	25	24	23	21
16	12	Influenza	123	144	138	133	61	35	14	20	46	57	50	127
316	13	Insolatio (Hitzschlag, coup de chaleur)	....	2	1	1	....	2	2	2	....	....	....	1
27	14	Meningitis cerebro-spinalis epidemica	....	....	....	....	1	....	....	....	....	....	....	....
12	15	Morbilli	8	9	33	77	61	54	36	37	23	7	4	13
30	16	Parotitis epidemica	130	175	280	187	106	72	26	10	14	4	5	2
177	17	Pleuritis	21	11	17	22	17	11	13	26	10	16	15	11
176	18	Pneumonia crouposa sive lobaris	14	19	23	10	6	3	1	6	3	1	8	12
73 and 74	19	Rheumatismus articulorum	76	78	108	100	94	80	57	71	66	61	59	53
13	20	Scarlatina	1	....	....	....	1	....	....	....	....	....	....	....
76	21	Scorbutus	....	1	....	....	....	....	....	....	....	....	....	....
54 to 57	22	Syphilis	186	156	153	142	126	128	122	120	113	122	120	126
112	23	Trachoma	2	1	1	1	1	8	3	3	5	3	1	....
47 and 48	24	Tuberculosis pulmonum[c]	23	23	27	27	28	24	24	21	17	11	19	10
49 to 53	25	Tuberculosis ceterorum organorum	3	3	7	3	2	5	2	3	2	4	1	4
1	26	Typhus abdominalis	14	15	8	6	7	8	33	58	73	46	38	41
2	27	Typhus exanthematicus	....	....	....	....	....	....	....	....	....	....	....	....
58 and 59	28	Ulcus molle (including adenitis venerea)	183	179	207	146	165	158	164	150	174	197	183	194
11	29	Variola	2	....	4	5	3	1	....	....	....	....	....	....
132 to 136	30	Morbi auris	75	55	46	43	55	74	48	47	44	37	39	33
137 to 139	31	Morbi cordis[d]	22	24	15	25	9	10	10	8	12	10	11	14
258, 260 to 266, 268, 270 and 271.	32	Morbi cutis[e]	112	91	128	118	116	142	133	151	107	153	108	119
100	33	Morbi mentis[f]	10	5	4	9	11	9	5	9	6	7	4	5
111 to 131	34	Morbi oculi	103	105	91	115	97	105	98	85	76	83	92	65
229 to 248	35	Morbi systemat. urin. et sexual (excluding venerie et syphilis).	81	84	74	86	76	79	66	70	71	76	78	61

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[a] Numbers to nomenclature used in 1906.

[b] Malarial fever, intermittent only.

[c] Includes tuberculosis of the lungs and larynx.

[d] Includes pericarditis and endocarditis.

[e] Includes all diseases of the skin proper.

[f] Includes insanity only.

INTERNATIONAL TABLE IX.—*Deaths by rank, by length of service, and by age.*

Cause of death.		Total number of deaths (enlisted men).		Deaths by rank and length of service.				Deaths by age.					
		Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and beyond.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Deaths from sickness...	Soldiers present with troops	124	2.12	30	20	19	55	2	47	33	12	13	17
	Soldiers absent from troops	68	1.16	17	8	11	32	1	24	20	9	6	8
Accidental deaths...	Soldiers present with troops (21 killed in action)	126	2.15	21	16	29	60	4	53	37	15	9	8
	Soldiers absent from troops	1	.02	......	1	......	......	....	.....	1	....	....	....
Suicides....	Soldiers present with troops	37	.63	15	2	......	20	....	11	12	6	5	3
	Soldiers absent from troops	2	.03	2	......	......	......	....	.....	1	....	....	1
Grand total		358	6.11	85	47	59	167	7	135	104	42	33	37

INTERNATIONAL TABLE X.—*Discharges from the army for physical disability, temporary or permanent, by rank, length of service, and by age.*

Cause of discharge.	Total discharges (enlisted men).		Rank and length of service.				Age.					
	Absolute numbers.	Per 1,000 of mean strength.	Noncommissioned officers.	Soldiers in first year of service.	Soldiers in second year of service.	Soldiers in third year of service and beyond.	20 and under.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 and over.
Physical disability existent prior to enlistment	707	12.07	3	618	59	27	79	467	121	36	4	....
Physical disability incident to service	610	10.41	81	207	51	271	7	251	180	84	53	35
Physical disability not incident to service	206	3.52	12	58	53	83	5	118	54	16	10	3
Grand total	1,523	26.00	96	883	163	381	91	836	355	136	67	38

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